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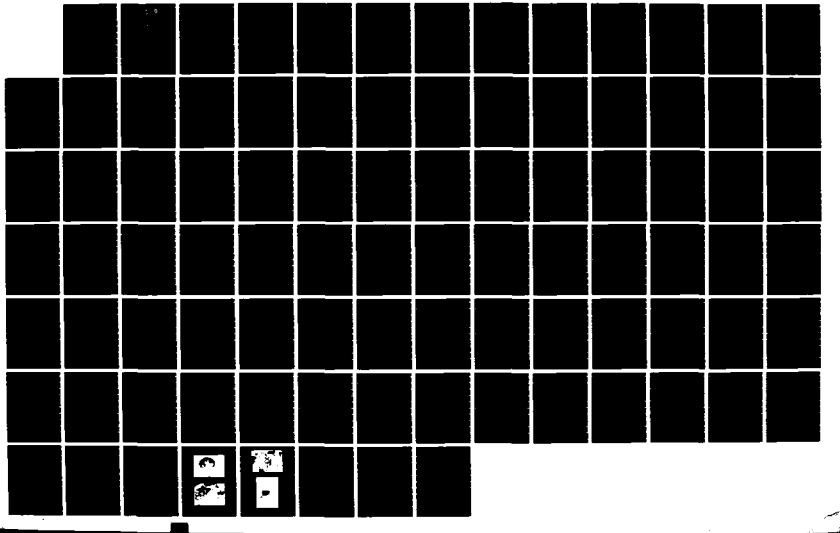

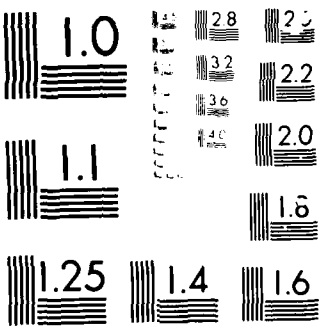
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FPO-1-84 (17)

DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT

Original contains color plates: All DTIC reproductions will be in black and white

AUGUST 1984

OCEAN ENGINEERING
AND CONSTRUCTION PROJECT OFFICE
CHESAPEAKE DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
WASHINGTON, DC 20374

ABSTRACT

This report contains the results of the inspection of 13 fleet moorings (19 buoy systems) located in the lagoon at Diego Garcia, BIOT. A CHESNAV-FACENGCOM-assigned Engineer-in-Charge and divers from Underwater Construction Team Two conducted the inspection from 6 to 31 May 1984.

Some of the top jewelry contained in nine moorings (FM 2, 4, 5, 8N, 8S, 9N, 9S, 10, and POL-S) is in unsatisfactory condition and must be replaced or removed if these buoys are to remain in service. Once this is accomplished, all moorings, except 5, 8N, 9S and POL-S, will be in fair condition and satisfactory for continued fleet use.

Buoy FM 5 is riding on its side and apparently is taking on water. This buoy is in unsatisfactory condition for continued fleet use and should be removed and overhauled at the earliest practical time. Moorings 8N, 9S, and POL-S must be downgraded in classification due to worn anchor chain assemblies.

Detailed information and specific comments concerning each of these moorings are included within this report.

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DIEGO GARCIA FLEET MOORING
UNDERWATER INSPECTION REPORT

1.0 INTRODUCTION

1.1 Background. Under the COMNAVFACENGCOM Fleet Mooring Maintenance (FMM) Program, CHESNAVFACENGCOM has been assigned the responsibility to plan and conduct periodic diver inspections of all fleet moorings worldwide. In carrying out this responsibility, CHESNAVFACENGCOM designated an Engineer-in-Charge (EIC) to provide inspection planning and onsite technical direction for the underwater inspection of fleet moorings located in the lagoon at Diego Garcia, BIOT. (see Figures 1 and 2). The actual underwater portion of the inspection was performed by divers of Underwater Construction Team Two (UCT TWO). The inspection was conducted from 6 to 31 May 1984.

1.2 Mooring Historical Data. During April and May of 1980, two Buoy Dolphin Systems were installed in Diego Garcia as part of the POL Pier Project. The POL pier is a platform 40-feet wide by 550-feet long and is connected by a trestle to the shore at its southeasterly end. The two Buoy Dolphins secure the bow and stern lines of large classes of ships and are located at the two ends of the pier approximately 175 feet from the edge of the pier and set back 60 feet (inshore) from the pier face. Each of the Buoy Dolphin Systems consists of a modified MARK II Peg Top Buoy, five anchor chain subassemblies, sinkers, and propellant embedment anchors. The locations of the Buoy Dolphin Systems are shown in Figure 3.

On 17 March 1981, the installation of 11 fleet moorings in the lagoon at Diego Garcia was completed. These moorings were installed in response to new Navy requirements for support of the Indian Ocean Battle Group. The positions of these moorings are shown in Figure 4. The 11 moorings consist of four different classes of moorings which are comprised of 17 buoy systems. Each of these buoy systems is cathodically protected with zinc anodes.

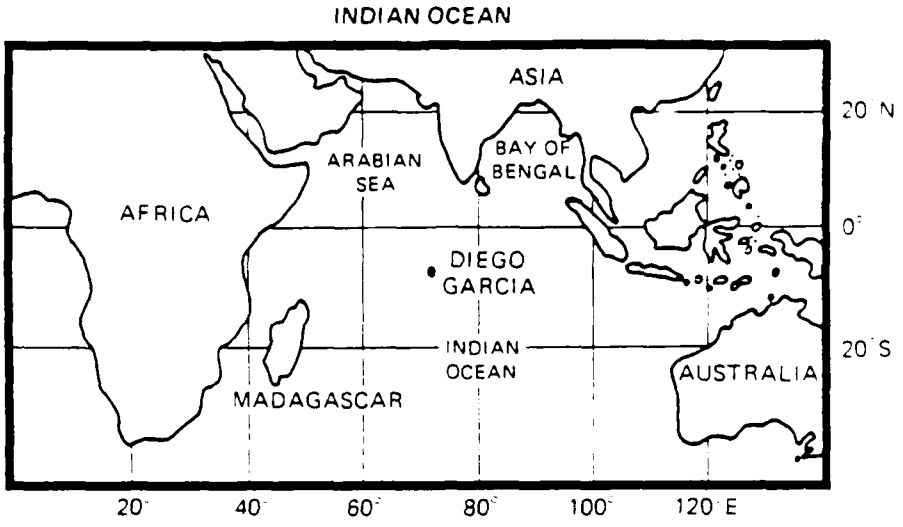

FIGURE 1. INDIAN OCEAN

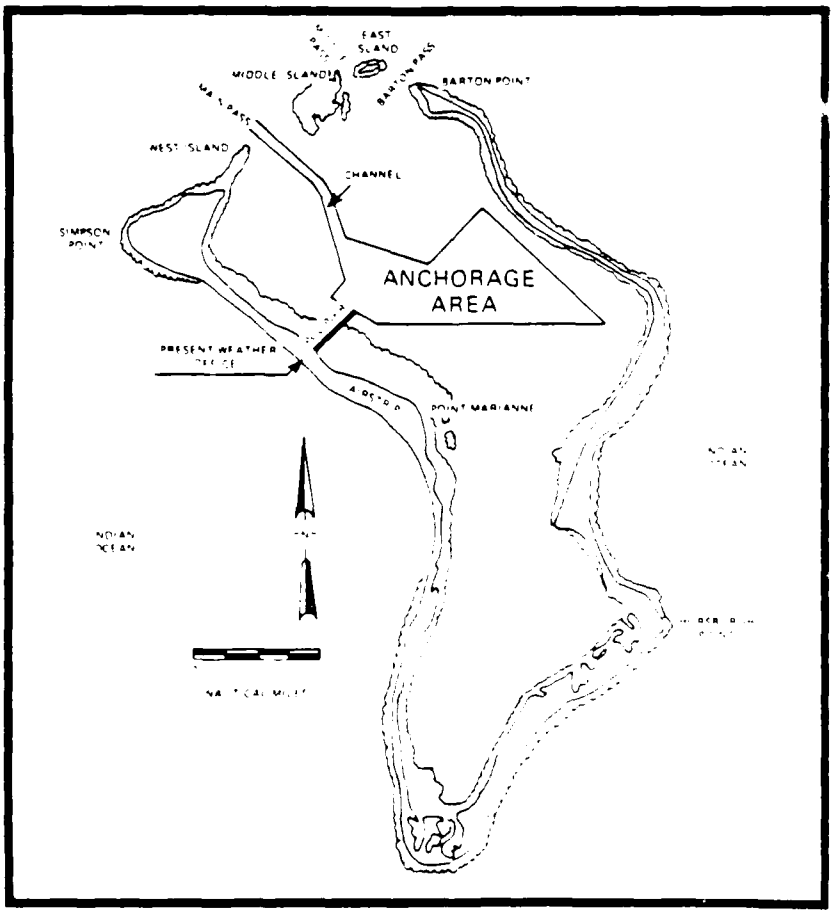

FIGURE 2. DIEGO GARCIA

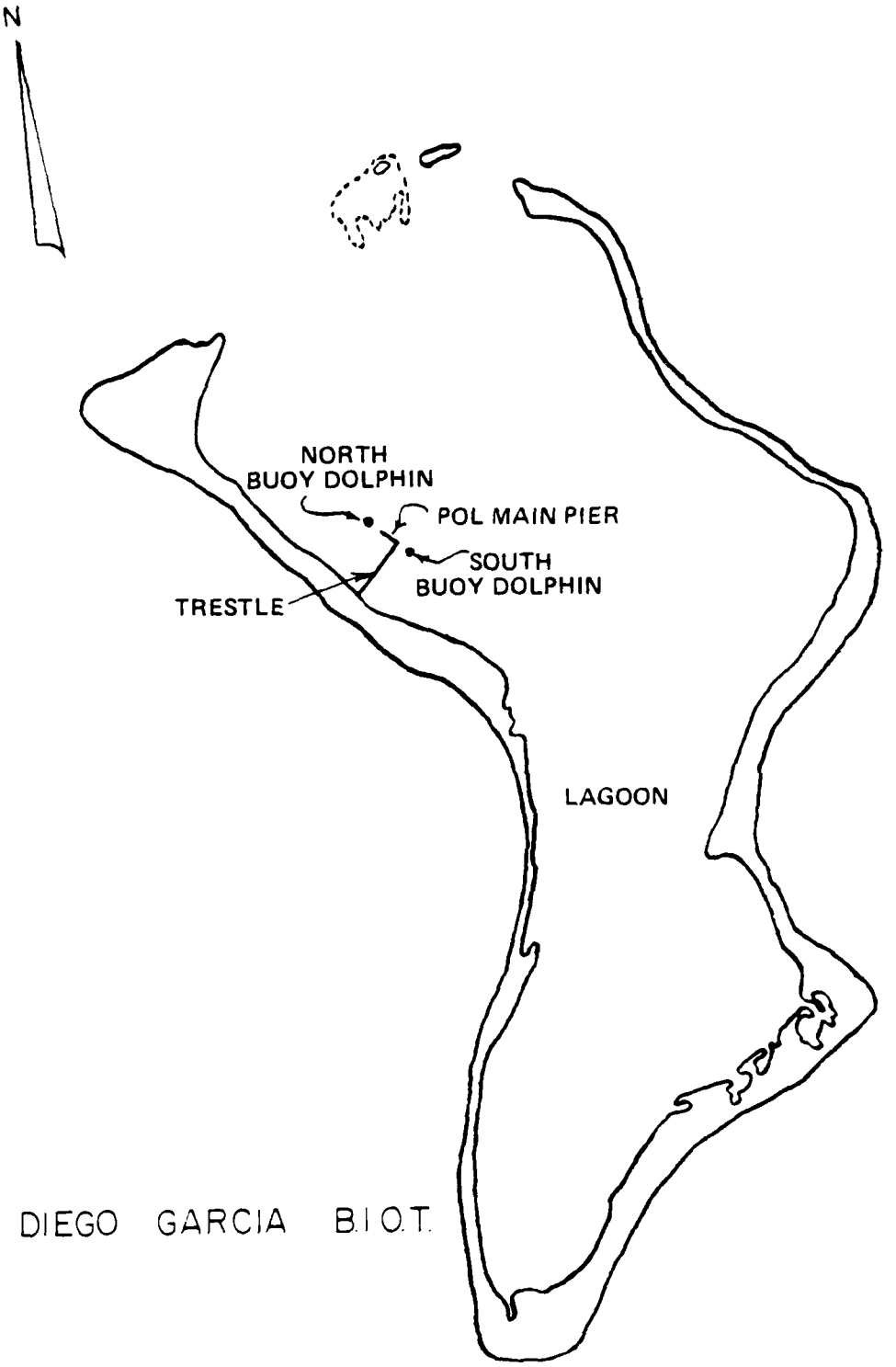

FIGURE 3. GENERAL LOCATION OF POL PIER AND BUOY DOLPHINS

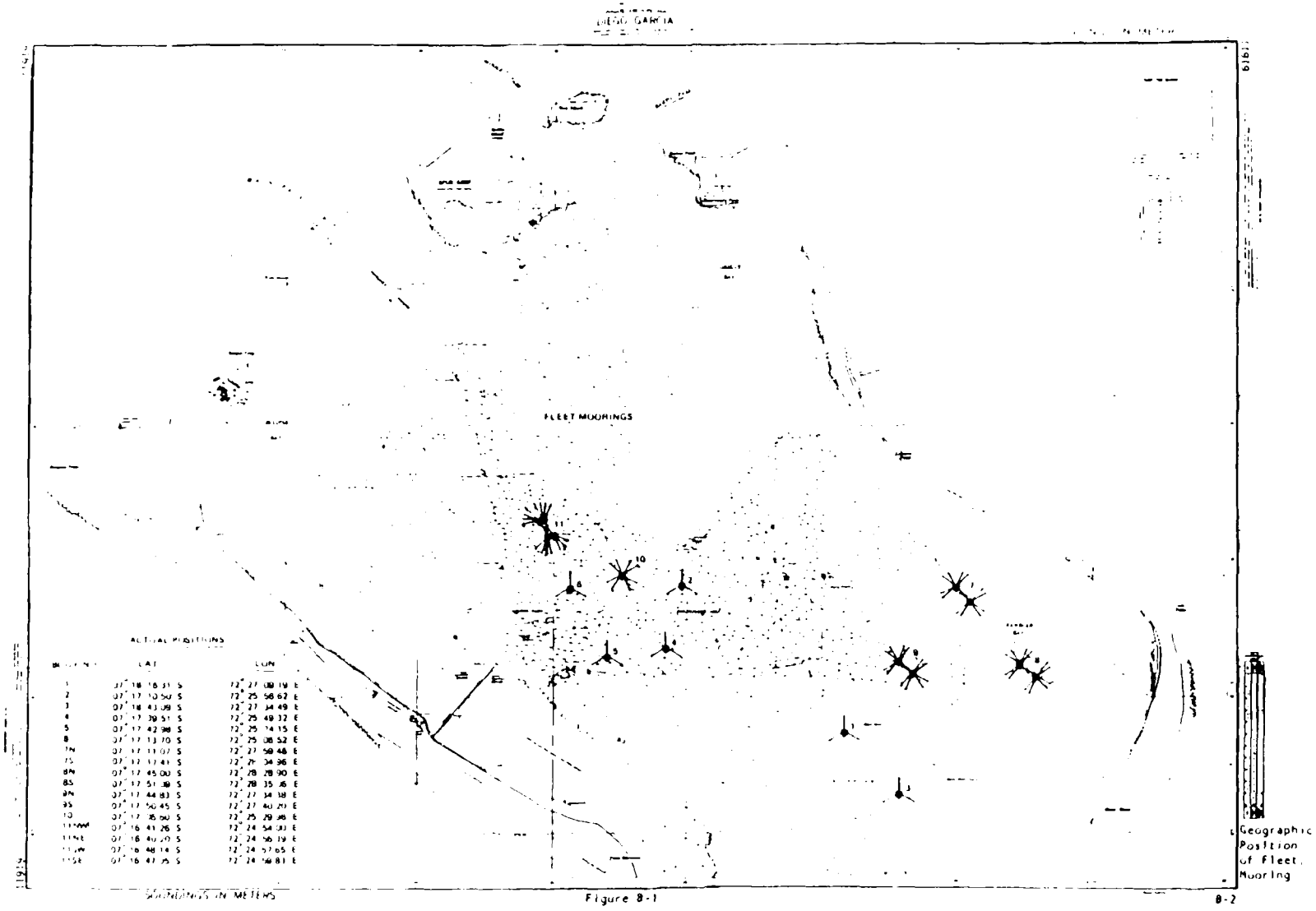

FIGURE 4. GEOGRAPHIC POSITIONS OF FLEET MOORINGS

An underwater inspection of all of the Diego Garcia fleet moorings was conducted in May of 1982. With the exception of one leg of mooring POL-S, the chain and chain accessories were found to be in good condition. However, the buoy tops were in poor condition because of heavy rusting.

2.0 INSPECTION PROCEDURES

2.1 Inspection Objectives. The purpose of the mooring inspections was to determine the general condition of the buoys and chain assemblies and, when possible, to verify or update existing as-built and maintenance records. Divers inspected only a portion of the submerged buoy hull and chain assemblies in order to compile a general description of the mooring's condition. The existence of fairly consistent measurements during this inspection provides a good indication of the mooring's overall condition. It should be kept in mind that periodic underwater inspections are intended as an expedient and relatively inexpensive supplement to accurate maintenance records.

Chain wire diameter measurements are used to evaluate the condition of a mooring. A selective sampling of the wire diameter of chain links and connecting hardware was taken in order to determine the amount of deterioration due to corrosion and wear. At each sampling area, the chain was cleaned to bare metal. Single-link measurements were taken where the chain was slack to detect corrosion loss. Double-link measurements were taken where two links connected under tension to detect the combined effects of corrosion and wear. Chain links and other components which measured 90 percent or greater of original wire diameter are considered to be in "good" condition; measurement between 80 and 90 percent of original diameter is considered "fair" condition and is cause for the mooring to be downgraded in classification; any measurement less than 80 percent is considered "poor" and is cause for the mooring to be declared unsatisfactory for fleet use.

Standard underwater inspection procedures do not call for the inspection of any part of the mooring which has been buried or which is below a water depth of 130 feet if scuba gear is used. Anchor chain and riser subassemblies

were observed only to the point at which they became buried; no attempt was made to locate and inspect anchors or other mooring materials which were not readily visible.

2.2 Buoy

2.2.1 Buoy Topside. Each buoy was inspected to determine its general condition. The buoy markings were checked for conformance to those noted in applicable charts. Physical damage such as holes, dents, or listing was described. Hatches, openings, and penetrations were examined and worn material and rust were reported.

The buoy fenders and chafing strips were checked for integrity and secure connection to the buoy. Buoy top jewelry was measured with calipers to find the overall outside dimensions and areas of most severe reduction in wire size.

2.2.2 Buoy Lower Portion. Divers inspected the buoy below the waterline. The thickness of marine growth was recorded and the condition of the buoy bottom was noted.

2.3 Riser Subassembly. To determine chain wear, each riser chain was inspected by taking three consecutive double link measurement, using pre-cut gauges and/or calipers, at both ends and at the center of the riser. To determine original chain size, divers took single link measurements of the wire diameter and measured the link length (link length should be six times the wire diameter).

2.4 Anchor Chain Subassembly. Using pre-cut gauges and calipers, UCT TWO divers took sample measurements of these subassemblies. Most of this chain was found to be in satisfactory condition.

3.0 INSPECTION SUMMARY

An in-depth discussion of the inspection results is contained in Annex A. Annex B contains photographs and Annex C contains a copy of the preliminary report of the inspection results. A detailed evaluation of the information gathered during the inspection revealed the following:

- Of the 19 buoy systems inspected, none were found to be in good condition. Some of the top jewelry of nine buoy systems are in unsatisfactory condition (less than 80% of original wire diameter) and must be removed or replaced at once if the moorings are to remain in service. When this top jewelry has been removed, all moorings (except 5, 8N, 9S, and POL-S) will be in fair condition and deemed satisfactory for continued fleet use.

- Mooring 5 is in poor condition due to its poor buoy condition and chain measurements between 80 and 90 percent of original wire diameter. One or more buoy compartments are apparently taking on water and the buoy may be in danger of sinking. The buoy is unsatisfactory for continued fleet use and should be overhauled as soon as possible.

- Mooring 8N is in fair condition, due to anchor chain subassembly measurements between 80 and 90 percent of original wire diameter. It must be downgraded in classification and its holding capacity restricted to 125,000 pounds. The mooring should be overhauled during the next scheduled maintenance period.

- Mooring 9S is in poor condition due to the buoy condition and anchor chain subassembly which measures between 80 and 90 percent of original wire diameter. This mooring should be downgraded in classification and the holding capacity restricted to 125,000 pounds. The mooring should be overhauled during the next scheduled maintenance period. In addition, the top jewelry, some of which measures less than 80 percent, should be replaced.

- POL-S is in poor condition due to chain measurements on leg S-3 of less than 80 percent of original wire diameter (reported in the last inspection). However, because leg S-3 is not considered essential for the mooring to function, this mooring need only be downgraded in classification and the holding capacity restricted to 75,000 pounds. The mooring should be overhauled during the next scheduled maintenance period.

- All buoys should be overhauled as soon as possible.

TABLE 1. INSPECTION SUMMARY

Mooring Number	Condition (1) Good	Fair	Poor	Comments
1		X		Top jewelry spider plate should be replaced and wire rope cables attached to top jewelry removed. All chain subassembly measurements >90%. Buoy needs to be overhauled.
2(2)		X		Mooring scheduled for removal. Pear links in top jewelry <80% and must be replaced. All chain subassembly measurements >90%. Use of mooring restricted until top jewelry replaced.
3		X		Most of top jewelry should be replaced. All chain subassembly measurements >90%. Buoy needs to be overhauled.
4		X		Pear links in top jewelry measured <80%. Use of mooring should be restricted until these links are removed or replaced. All chain subassembly measurements >90%. Buoy needs to be overhauled.
5			X	Much of top jewelry measures <80% and must be removed or replaced. Some chain links in anchor subassembly C are between 80-90%. Buoy riding on side, which may indicate it is taking on water. Mooring is in unsatisfactory condition for continued use. The buoy should be removed and overhauled.
6(2)		X		Spider plates in top jewelry are worn to 80-90% while all chain subassemblies are >90%. Buoy needs to be overhauled. Mooring is to be removed from service. If used prior to this time, worn spider plates must be removed or replaced.
7N		X		Much of top jewelry measured between 80-90% of original diameter. Chain subassembly measurements >90%. The buoy needs to be overhauled and the top jewelry replaced.
7S		X		Some of top jewelry measures between 80 and 90%. Chain subassemblies measure >90%. Buoy needs to be overhauled and the top jewelry replaced.

Notes: (1) All top jewelry with measurements less than 80 percent of original wire diameter must be removed or replaced before the mooring conditions shown in this table can be obtained.

(2) To be removed from service in FY 84.

TABLE 1. INSPECTION SUMMARY (Continued)

Mooring Number	Condition (1) Good	Fair	Poor	Comments
8N		X		Some top jewelry measures <80%. Sections of anchor chain subassembly B-2 were measured to be between 80 and 90%. Use of the mooring should be restricted until the worn top jewelry is replaced. The buoy needs to be overhauled and due to the condition of subassembly B-2, the mooring must be downgraded.
8S		X		Some of top jewelry measures <80%. Use of the mooring should be restricted until the worn top jewelry is replaced. Buoy needs to be overhauled.
9N		X		Two pear links in the top jewelry measured <80%. Anchor chain subassemblies measured >90%. Buoy needs to be overhauled. Use of this mooring should be restricted until worn top jewelry is replaced.
9S			X	Some of the top jewelry measures <80%. Subassemblies B-2 and C-2 measured between 80 and 90%. The buoy needs to be overhauled. Missing 3-inch pipe vent plug should be replaced. The use of this mooring should be restricted until the top jewelry is removed or replaced. The mooring must be downgraded.
10(2)		X		Some of the top jewelry measured <80%. All subassembly measurements >90%. The mooring is scheduled for removal. Use should be restricted until the top jewelry is replaced.
11NE(2)		X		Top jewelry worn to 80-90%. Chain subassemblies measured >90%. Buoy needs to be overhauled. Buoy system scheduled for removal. Worn top jewelry should be replaced if the buoy is to be used prior to removal.
11NW(2)		X		Top jewelry worn to 80-90%. Chain subassemblies measured >90%. Buoy needs to be overhauled. Buoy system scheduled for removal. Worn top jewelry should be replaced if the buoy is to be used prior to removal.
11SE(2)		X		Top jewelry worn to 80-90%. Chain subassemblies measured >90%. Buoy needs to be overhauled. Buoy system scheduled for removal. Worn top jewelry should be replaced if the buoy is to be used prior to removal.

TABLE 1. INSPECTION SUMMARY (Continued)

Mooring Number	Condition (1) Good	Fair	Poor	Comments
11SW(2)		X		Top jewelry worn to 80-90%. Chain subassemblies measured >90%. Buoy needs to be overhauled. Buoy system scheduled for removal. Worn top jewelry should be replaced if the buoy is to be used prior to removal.
POL-N		X		Top jewelry measured between 80 and 90%. All chain subassemblies >90%. Buoy needs to be overhauled and top jewelry replaced. Buoy system in satisfactory condition for continued use.
POL-S			X	Some of top jewelry measured <80%. Anchor chain subassembly S-3 measured <80% in previous inspection. Buoy should be overhauled, the worn top jewelry removed, and subassembly S-3 replaced. S-3 replaced.

ANNEX A

MOORING INSPECTION RESULTS

This Annex contains the following for each mooring:

- a summation of the inspection data obtained by the CHESNAVFACENGCOM EIC, UCT TWO divers, and NSF divers; and
- a diver data reporting form.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

A.1 CARGO FREE SWINGING MOORINGS

Six cargo free swinging moorings are installed in the lagoon at Diego Garcia (Fleet Moorings 1 through 6). Each of these moorings is a riser type and includes a MK II Peg-Top Buoy, a chain swivel shot of riser chain subassembly, a ground ring, three 540-foot anchor chain subassemblies, wire rope anchor pendants, and three 100 KIP propellant embedment anchors. The buoy and chain subassemblies of these moorings are cathodically protected with zinc anodes and wire rope continuity cable systems. Figure A-1 is an isometric drawing of this type of mooring system.

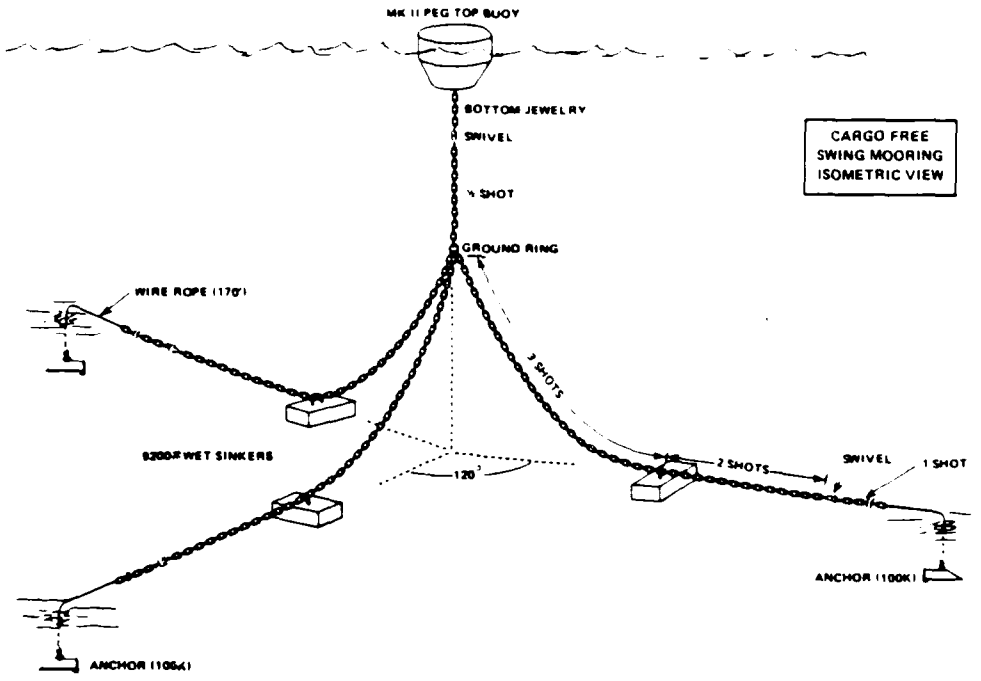

FIGURE A-1. CARGO FREE SWINGING MOORING

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 1

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. Its freeboard is between 52 and 54 inches and the buoy's underwater hull is covered with about a half-inch of marine growth. The fenders and chafing strips are in satisfactory condition, but the 3-inch spider plate in the top jewelry measured only between 80 and 90 percent of its original wire diameter. There are 10 wire rope cables attached to the top jewelry and hanging in the water. Between 1 and 1 1/2 inches of each buoy anode has been consumed and the top deck and top jewelry are lightly rusted.

Riser Chain Subassembly

This chain appears to be in good condition. Chain link measurements were greater than 90 percent of original wire diameter. The ground ring was located at a depth of 70 feet and has a number of unused pear links attached to it.

Anchor Chain Subassemblies

This chain is in good condition. All chain link measurements taken were greater than 90 percent of the original wire diameter.

Cathodic Protection System (CPS)

The cathodic protection system appears to be operating as designed. Numerous underwater voltmeter readings taken over the length of the visible riser and anchor chain subassemblies were between -.894 and -1.007 volts. During the

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inspection, a 250 pound anode was installed on each of the three anchor pendants.

Conclusions/Recommendations

This mooring is in satisfactory condition for continued use. However, the spider plate in the top jewelry must be replaced and the ten wire rope cables removed. The buoy needs to be overhauled.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 1 CLASS: SPEC. RISER LOCATION: DIEGO GARCIA LAT: 07°18'16.31"S LONG: 72°27'09.19"E

BUOY TYPE: PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 102' VISIBILITY: 8' BOTTOM TYPE: SILT 6-8"

DATE: 11 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

	COMPONENTS	GAUGE SIZE	CONDITION: LINK LENGTH	SINGLE LINK % 90+	SINGLE LINK % 80+	SINGLE LINK % 80−	DOUBLE LINK % 90+	DOUBLE LINK % 80+	DOUBLE LINK % 80−	DEPTH	COMMENTS
BUOY HARDWARE	BUOY 12'x9'6"										BODY ANODES DOWN 1"-1½", HALF INCH
	BUOY PAD EYE	2¾"		✓							MARINE GROWTH, FENDERS OK.
	SPIDER PLATE	3"			✓						CHAFING STRIPS OK, 52"/54"
	SPIDER PLATES(2)	2¾"									FREEBOARD. TEN WIRE CABLES
	PEAR LINKS (4)	2⅛"									HANGING ON JEWELRY.
RISER	NEAR BUOY	2¼"	18½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	↓	✓✓✓			✓✓✓				
	NEAR GRD RG	2¼"	↓	✓✓✓			✓✓✓				
GROUND RING		19" ID								70'	4" DIAM. LARGE UNUSED LINKS ON G.R.
BRNG 010° GROUND LEG NO. A	UPPER END	2"	12"	✓✓✓			✓✓✓				CONTINUITY WIRE OK
	MIDDLE	↓	↓	✓✓✓			✓✓✓				ANODE INSTALLED ON PENDANT
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			102'	PILE OF APPROX 20 LINKS ON BOTTOM
BRNG 115° GROUND LEG NO.B	UPPER END	↓	↓	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓			50'	SHINY LINKS
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			95'	INSTALLED ANODE ON PENDANT
BRNG 235° GROUND LEG NO. C	UPPER END	↓	↓	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓			80'	SHINY LINKS
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			97'	INSTALLED ANODE ON PENDANT

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 2

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. Its freeboard measures 44 and 48 inches. The buoy's fenders and chafing strips are in satisfactory condition. The top deck and top jewelry are moderately rusted. The buoy anodes are in good condition. The four pear links at the ends of the top jewelry are worn to less than 80 percent of their original wire diameter.

Riser Chain Subassembly

This chain appears to be in good condition. chain link measurements were greater than 90 percent of their original wire diameters. The ground ring was located at a depth of 21 feet.

Anchor Chain Subassemblies

The anchor leg chain is in good condition. All chain link measurements taken were greater than 90 percent of the original wire diameter.

Cathodic Protection System (CPS)

The cathodic protection system appears to be functioning as designed. The installed anodes and continuity cable are in good condition.

Conclusions/Recommendations

This mooring is to be removed from service in the near future. If it is to be utilized prior to removal, the top jewelry must be replaced with adequately sized spider plates and pear links.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 2 CLASS: SPEC. RISER LOCATION: DIEGO GARCIA LAT: 07° 17' 10.50" S LONG: 72° 25' 56.62" E

BUOY TYPE: PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 98' VISIBILITY: 20' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. M°LAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	LINK LENGTH	CONDITION						DEPTH	COMMENTS
				SINGLE LINK %			DOUBLE LINK %				
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 9'6" x 12'										FREEBOARD 48"/44". BUOY ANODES
	BUOY PAD EYE	2 3/4"		✓							OK
	LG SPIDER PLATE	3"			✓						
	SM SPIDER PLATE(2)	2 3/4"			✓✓						
	PEAR LINKS (4)	2 1/8"				✓✓✓✓					PEAR LINKS WORN
RISER	NEAR BUOY	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	NEAR GRD RG	↓	↓	✓✓✓			✓✓✓				
GROUND RING										21'	
GROUND LEG NO A	UPPER END	2"	12"	✓✓✓			✓✓✓				CONTINUITY WIRE OK. ANODES OK.
	MIDDLE	↓	↓	✓✓✓			✓✓✓				SWIVEL OK
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			96'	LAST SHOT IN TENSION
GROUND LEG NO B	UPPER END	↓	↓	✓✓✓			✓✓✓				CONTINUITY WIRE AND ANODES
	MIDDLE	↓	↓	✓✓✓			✓✓✓				OK. SWIVEL OK.
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			98'	
GROUND LEG NO C	UPPER END	↓	↓	✓✓✓			✓✓✓				CONTINUITY WIRE OK. SWIVEL
	MIDDLE	↓	↓	✓✓✓			✓✓✓				OK. ANODES OK. LEG VERY
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			98'	TAUT.

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 3

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. Its freeboard measures 45 and 48 inches, and its fenders are in satisfactory condition. Three feet of the outside chafing strip is missing and should be replaced. Much of the top deck jewelry measures between 80 and 90 percent of original wire diameter and is covered with medium rust. The manhole bolts are heavily corroded and there is an 18- by 2-inch dent in the buoy's hull.

Riser Chain Assembly

The riser chain is in good condition. All chain link measurements were greater than 90 percent of original wire diameter. The ground ring was located at a depth of 60 feet and is in good condition.

Anchor Chain Subassemblies

Only the upper ends of the three anchor chain subassemblies were visible. Each subassembly was buried within 25 feet of bottom touchdown. The visible chain measured was greater than 90 percent of its original wire diameter.

Cathodic Protection System (CPS)

Underwater voltmeter readings taken were between -.957 and -.981 volts. The installed cathodic protection system appears to be operating effectively.

Conclusions/Recommendations

This mooring is in satisfactory condition for continued use as a fleet mooring. However, the buoy should be overhauled and the top jewelry replaced during the next scheduled maintenance period.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 3 CLASS: SPEC RISER LOCATION: DIEGO GARCIA LAT: 07° 18' 43.09" S LONG: 72° 27' 34.49" E

BUOY TYPE: PEG TOP ANCHOR SIZE/TYPE: 100 K PEA WATER DEPTH: 90' VISIBILITY: 15' BOTTOM TYPE: SILT

DATE: 16 MAY 84 ENGINEER IN CHARGE: J McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12' x 9'6"										FREEBOARD 48"/45". FENDERS (TWO
	BUOY EYE	3"		✓							CHAFING STRIPS OK. OUTSIDE
	LG SPIDER PLATE	3"			✓						CHAFING STRIP DAMAGED. THREE
	SM SPIDER PLATE (2)	2 3/4"			✓						FEET OF THIS STRIP DAMAGED/
	REAR LINKS (4)	2 3/4"			✓						MISSING/ROTTEN. MAN HOLE BOLTS
RISER	NEAR BUOY	2 1/4"	13 1/2"	✓✓✓			✓✓✓			10'	CORRODED, TOP DECK RUSTED. 18"
	MIDDLE	↓	↓	✓✓✓			✓✓✓			30'	WIDE 1' HIGH DENT IN BUOY'S HULL.
	NEAR GRD RG	↓	↓	✓✓✓			✓✓✓			50'	
GROUND RING		21 1/2 ID								60'	4 1/2" DIAM. LINKS GOOD
GROUND LEG NO. A	UPPER END	2"	12"	✓✓✓			✓✓✓				SHINY CHAIN. ONLY UPPER 30'
	MIDDLE	↓	↓								MEASURED ON EACH LEG
	ENTERS BOTTOM	↓	↓							89'	15' OF CHAIN ON BOTTOM BEFORE
GROUND LEG NO. B	UPPER END	↓	↓	✓✓			✓✓✓				BURIED
	MIDDLE	↓	↓								
	ENTERS BOTTOM	↓	↓							89'	25' OF CHAIN ON BOTTOM
GROUND LEG NO. C	UPPER END	↓	↓	✓✓✓			✓✓✓				
	MIDDLE	↓	↓								
	ENTERS BOTTOM	↓	↓							89'	10' OF CHAIN ON BOTTOM

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

MOORING 4

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. Its freeboard measures 45 and 51 inches. The topside jewelry is heavily rusted and the four pear links in this jewelry are in unsatisfactory condition (worn to less than 80 percent of original wire diameter). The buoy anodes are in good condition, but the buoy needs to be refurbished.

Riser Chain Subassembly

This chain appears to be in good condition. All chain link measurements were greater than 90 percent of original wire diameter. The ground ring was located at a depth of 60 feet.

Anchor Chain Subassembly

The chain is in good condition with all measurements greater than 90 percent of the original wire diameter.

Cathodic Protection System (CPS)

Underwater voltmeter readings were between -.926 and -.989 volts. About two inches of previously installed anodes have been depleted. Remaining anodes are of grayish hue with dark (black) corners. Three new anodes (one per anchor chain subassembly) were installed on the wire rope anchor pendants.

Conclusions/Recommendations

The buoy should be overhauled during the next scheduled maintenance period. The use of this mooring must be restricted until the worn top jewelry can be replaced.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 4 CLASS: SPEC. RISER LOCATION: DIEGO GARCIA LAT: 07°17'39.51"S LONG: 72°26'49.33"E

BUOY TYPE: PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 110' VISIBILITY: 10' BOTTOM TYPE: CORAL/SILT

DATE: 7 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	LINK LENGTH	CONDITION							COMMENTS
				SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12'x9'6"										FREEBOARD 45"/51" (6" LIST). ONLY
	BUOY PAD EYE	3 3/4"		✓							TWO BUOY ANODES (OK). TOPSIDE
	LG SPIDER PLATE	3"		✓							JEWELRY SEVERLY RUSTED (1/16"-1/8")
	SM SPIDER PLATE (2)	2 3/4"			✓✓						TWO OLD NUMBERS SHOWING
	PEAR LINKS (4)	2 1/4"				✓✓✓✓					THROUGH THE BUOY PAINT.
RISER	NEAR BUOY	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	NEAR GRD RG	↓	↓	✓✓✓			✓✓✓				
GROUND RING 20" ID		.		✓						60'	4" DIAM
BRNG 068 GROUND LEG NO. A	UPPER END	2"	12"	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			92'	NEW ANODE. SWAGE FITTING OK
BRNG 180° GROUND LEG NO. B	UPPER END	↓	↓	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓			100	ANODE ON WIRE ROPE
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			110'	ANODES ARE GREY WITH BLACK
BRNG 310° GROUND LEG NO. C	UPPER END	↓	↓	✓✓✓			✓✓✓				CORNERS. DOWN ABOUT 2".
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			92'	

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 5

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. The buoy is riding on its side which was initially thought to be due to the weight of a number of wire ropes attached to its top jewelry and hanging over the side of the buoy. However, after these wire ropes were removed, the buoy did not right itself. This indicates that one or more of its four watertight compartments may be taking on water. This buoy has four anodes attached: two in re-bar cages and two in recessed sea chests. The two smaller spider plates (2 3/4") and the four pear links in the top jewelry measured less than 80 percent of their original wire diameters.

Riser Chain Assembly

The riser chain is in good condition. All chain link measurements were greater than 90 percent of original wire diameter. The ground ring was located at 50 feet.

Anchor Chain Subassembly

Some chain link measurements in anchor chain subassembly C were between 80 and 90% of original wire diameter. This subassembly should be replaced during the next scheduled maintenance period. The other two subassemblies are in good condition with all measurements greater than 90 percent of original wire diameter.

Cathodic Protection System (CPS)

The continuity wire is intact on all three anchor chain subassemblies. Underwater voltmeter readings taken were for the most part between -.900 and -.985 volts and indicate the CPS is operating effectively. At one point

(76-foot depth), on anchor chain subassembly B, a voltmeter reading of only -.640 volts was obtained. The cause of this abnormal reading nas not been determined.

Conclusions/Recommendations

Due to the buoy apparently taking on water, it is in danger of sinking and is considered to be in unsatisfactory condition for continued fleet use. The buoy should be recovered at the earliest practical time and taken ashore to await overhaul. During overhaul, the top jewelry should be replaced. In addition, anchor chain subassembly C should be replaced during the next scheduled maintenance period.

MOORING NO.: 5 CLASS: SPEC RISER LOCATION: DIEGO GARCIA LAT: 07°17'42.98"S LONG: 72°25'24.15"E

BUOY TYPE: PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 84' VISIBILITY: 8' BOTTOM TYPE: SILT

DATE: 19 MAY 84 ENGINEER-IN-CHARGE: J McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION							DEPTH	COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %				
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12'x9'6"										BUOY LYING ON ITS SIDE. ONE OR
	BUOY PAD EYE	3"		✓							MORE COMPARTMENTS MAY BE FLOODED
	LG SPIDER PLATE	3"			✓						FOUR ANODES ON BUOY (TWO
	SM SPIDER PLATE (2)	2¾"				✓✓					RECESSED IN SEA CHESTS).
	PEAR LINK (4)	2½"				✓✓✓✓					
RISER	NEAR BUOY	2¼"	13½"	✓✓✓			✓✓✓			20'	SWIVEL OK. LOCATED 4 LINKS BELOW
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓			40'	BUOY
	NEAR GRD RG	2¼"	13½"	✓✓✓			✓✓✓			50'	
GROUND RING 1" ID										52'	4¾" WIRE DIAMETER
BRNG 007° GROUND LEG NO. A	UPPER END	2"	12"	✓✓✓			✓✓✓			65'	CONTINUITY WIRE CONTINUOUS ALL
	MIDDLE			✓✓✓			✓✓✓			76'	LEGS
	ENTERS BOTTOM			✓✓✓			✓✓✓			76'	PILE OF WIRE ROPE ON BOTTOM. ALL
BRNG 132° GROUND LEG NO. B	UPPER END			✓✓✓			✓✓✓			–	LEGS ENTER BOTTOM AFTER CLUMP.
	MIDDLE			✓✓✓			✓✓✓			78'	ANODES, CLAMPS, HARDWARE OK
	ENTERS BOTTOM			✓✓✓			✓✓✓			82'	ALL LEGS. SHINY LINKS AT 76' LEG
BRNG 255° GROUND LEG NO. C	UPPER END			✓✓	✓		✓✓✓			64'	BURIES BEFORE SWIVEL.
	MIDDLE			✓✓	✓		✓✓✓			84'	
	ENTERS BOTTOM	↓	↓	✓✓	✓		✓✓✓			84'	CHAIN IN/OUT OF BOTTOM ALL LEGS.

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 6

Buoy

This is a 12-foot-diameter peg-top buoy with a tension bar. Its freeboard is 45 inches, and its bottom fender is missing. The top fender and its chafing strips are in satisfactory condition. There is moderate rust on the top deck and jewelry with some flaking of the hardware. The two small spider plates in the top jewelry are worn to between 80 and 90 percent of their original wire diameter.

Riser Chain Subassembly

The chain appears to be in satisfactory condition. All chain link measurements are greater than 90 percent of their original wire diameters. The ground ring was located at a depth of 50 feet.

Anchor Chain Subassembly

This chain is in good condition. All measurements taken were greater than 90 percent of the chain's original wire diameter.

Cathodic Protection System (CPS)

Anodes on the anchor chain subassemblies have eroded about 3/4 of an inch. The continuity wire appears to be intact and the CPS system working effectively.

Conclusions/Recommendations

This mooring is to be removed from service in the near future. If it is to be utilized prior to removal, the small spider plates in the top jewelry should be replaced.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 6 CLASS: SPEC. RISER LOCATION: DIEGO GARCIA LAT: 07°17'13.705" LONG: 72°25'46.52"E

BUOY TYPE: YEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 90' VISIBILITY: 5'-8' BOTTOM TYPE: SILT

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. M^CLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12' x 9'6"										FREEBOARD 45"
	BUOY PAD EYE	3"		✓							BOTTOM FENDER MISSING. TOP
	LG SPIDER PLATE	3"		✓							FENDER AND CHAFING STRIPS OK.
	SM SPIDER PLATE (2)	2 3/4"			✓✓						
	PEAR LINKS (4)	2 3/4"									
RISER	NEAR BUOY	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	NEAR GRD RG	↓	↓	✓✓✓			✓✓✓				
GROUND RING		4 1/2"								50'	
GROUND LEG NO. A	UPPER END	2"	12"	✓✓✓			✓✓✓				
	MIDDLE	↓	↓	✓✓✓			✓✓✓				
	ENTERS BOTTOM			✓✓✓			✓✓✓			87'	CHAIN SUSPENDED OVER CORAL HEADS
GROUND LEG NO.B	UPPER END			✓✓✓			✓✓✓				
	MIDDLE			✓✓✓			✓✓✓				
	ENTERS BOTTOM			✓✓✓			✓✓✓			95'	WIRE BURIES IN LAST SHOT
GROUND LEG NO. C	UPPER END			✓✓✓			✓✓✓				
	MIDDLE			✓✓✓			✓✓✓				
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			80'	ANODES 3/4" EXPENDED

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 1

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

A.2 CARGO BOW/STERN MOORINGS

Three cargo bow/stern moorings are installed at Diego Garcia, each consisting of two buoy systems (Fleet Moorings 7N, 7S, 8N, 8S, 9N, and 9S). Each buoy system consists of a 16-foot-diameter non-riser (telephone) buoy, three 2 3/4-inch equalizers attached to three of the four buoy padeyes and three ground leg pairs. Each leg of a leg pair contains three and one-half shots of chain, 25,000 pounds of sinkers, 170 feet of 2 1/4-inch wire rope, and a 150 KIP propellent embedment anchor. A seven shot backstay leg with 170 feet of 2-inch wire rope and a 100 KIP embedment anchor is attached directly to the buoy's fourth padeye. The buoy, backstay leg, and the ground legs contain cathodic protection systems. Figure A-2 is an isometric drawing of each of these six buoy systems.

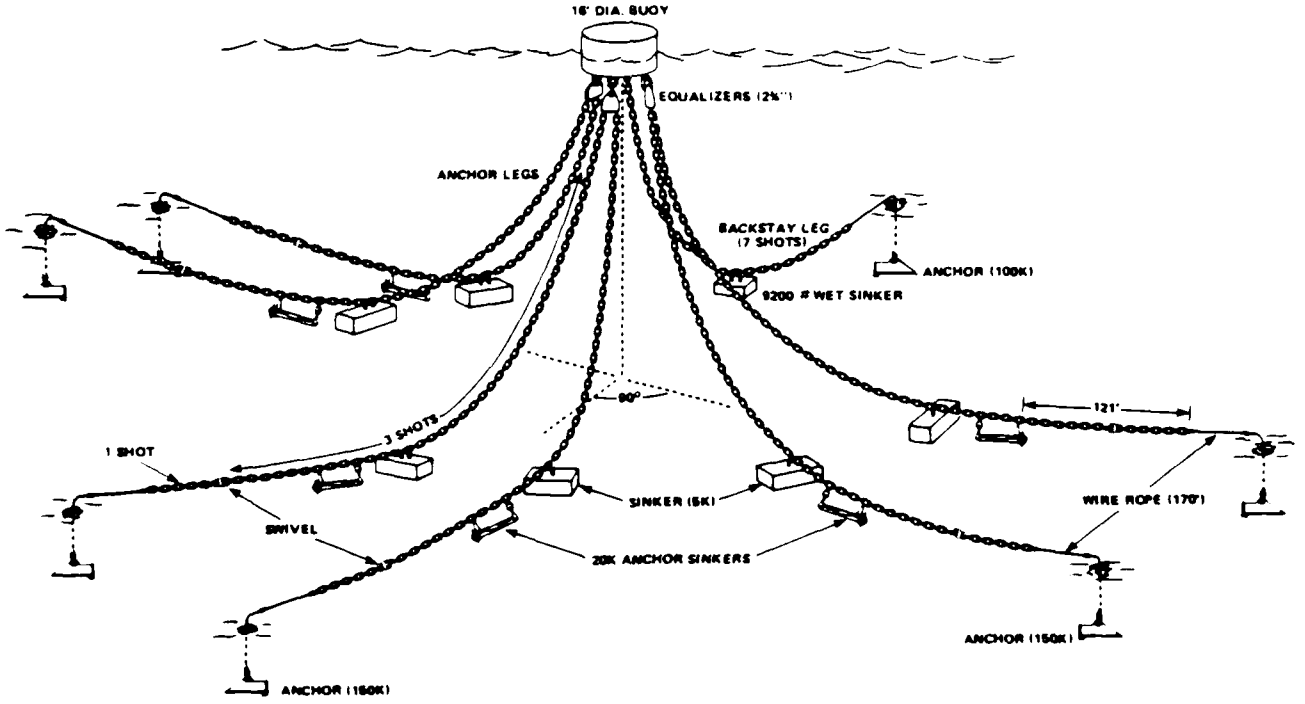


FIGURE A-2. CARGO BOW/STERN MOORING

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 7
BUOY 7N

Buoy

This is a 16-foot-diameter non-riser type buoy. The buoy is covered with rust and its top jewelry is rusted to a depth of 1/16 to 1/4 inch. Two welded links and two pear links in the top jewelry measured only between 80 and 90 percent of their original wire diameters.

Anchor Chain Subassemblies

This chain appears to be in good condition, and all measurements taken were greater than 90 percent of its original wire diameter. An anode was installed near or on each of the six wire rope anchor pendants. No attempt was made to install an anode on the backstay leg.

Cathodic Protection System (CPS)

Underwater voltmeter readings were between -.750 and -.985 volts with the lower reading obtained on leg B-1. The CPS appears to be working effectively.

Conclusions/Recommendations

This mooring is in fair condition because some of the top jewelry measured between 80 and 90 percent of its original wire diameter and because of the rusted condition of the buoy. The buoy needs to be overhauled and the top jewelry replaced.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 7N CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT: 07°17'11.02"S LONG: 72°27'59.45E

BUOY TYPE: NOW RISER (TELEPHONE) ANCHOR SIZE/TYPE: LEGS- 150K PEA BACKSTAY 100K PEA WATER DEPTH 86' VISIBILITY: 10'-15' BOTTOM TYPE: SILT/CORAL

DATE: 10 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16' DIAM										BUOY IS RUST COATED. TOP
	SWIVEL EYES (2)	4 1/4"		√√							JEWELRY HAS HEAVY RUST, 1/16"
	WELDED LINK (2)	3 1/4"			√√						to 1/4" THICK
	PEAR LINK (2)	2 1/2"			√√						
RISER A'A	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING (NA)											
BRNG 050° GROUND LEG NO A-1	UPPER END	2 1/2"	15"	√√√			√√√				
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM			√√√			√√√			86'	ANODE CONNECTED CHAIN TO WIRE
BRNG 020° GROUND LEG NO A-2	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				RED LINK AT BEGINNING OF LAST SHOT
	ENTERS BOTTOM			√√√			√√√			86'	ANODE CONNECTED WIRE TO
BRNG 235° GROUND LEG NO B-1	UPPER END			√√√			√√√				WIRE
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM	√	√	√√√			√√√			86'	ANODE CONNECTED CHAIN TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

A-19

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 7N CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 0° 17' 11.07" S LONG: 72° 27' 59.45" E

BUOY TYPE: NOW RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA LEGS 150K PEA WATER DEPTH: 85' VISIBILITY: 15' BOTTOM TYPE: SILT

DATE: 10 MAY 84 ENGINEER-IN-CHARGE: J. M°LAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
MAL 345° GROUND LEG NO. B-2	UPPER END	2 1/2"		√√√			√√√				CHAIN LEGS CRISSCROSS
	MIDDLE	2 3/4"		√√√			√√√				
	ENTERS BOTTOM	2 3/4"		√√√			√√√			86'	ANODE CONNECTED CHAIN TO WIRE
345° GROUND LEG NO C-1	UPPER END	2 1/2"	15"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			85'	ANODE CONNECTED CHAIN TO WIRE
335° GROUND LEG NO. C-2	UPPER END	↓	↓	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			85	ANODE CONNECTED TO WIRE BELOW CHAIN

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 7N CLASS: SPECIAL CARGO BUOY/STERN LOCATION: DIEGO GARCIA LAT: 07° 17' 11.02" S LONG: 72° 27' 59.45" E

BUOY TYPE: NAV RISER (TELEPHONE) ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 106' VISIBILITY: 10' BOTTOM TYPE: SILT

DATE: 10 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BAR 149° GROUND LEG NO. D BACKSTAY	UPPER END	2"	12"	VVV			VVV				BACKSTAY LEG. NO ANODES
	MIDDLE	↓	↓	VVV			VVV				INSTALLED. LEG ENTERS
	ENTERS BOTTOM	↓	↓	VVV			VVV			106'	BOTTOM ABOUT 150' TOWARD
GROUND LEG NO. B N/A	UPPER END										MOORING 7S. ONLY 1 1/2 SHOTS
	MIDDLE										VISIBLE.
	ENTERS BOTTOM										
GROUND LEG NO. C N/A	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 7

BUOY 7S

Buoy

This is a non-riser type buoy with a 16-foot diameter. Its freeboard measures 33 and 27 inches. The sides and top are covered with a heavy rust coating. A section of the outer chafing strip is missing, and the top jewelry is severely rusted. The two pear links in the top jewelry measure only between 80 and 90 percent of original wire diameter.

Anchor Chain Subassembly

The chain is in good condition with all chain link measurements greater than 90 percent of the original wire diameter. An anode was installed on or near each wire rope anchor pendant. The chain equalizers show no signs of movement.

Cathodic Protection System (CPS)

Underwater voltmeter readings were between -.809 and -.990 volts. All continuity wire appeared to be intact, and the CPS system is operating effectively.

Conclusions/Recommendations

This mooring is in fair condition due to some of the top jewelry measuring between 80 and 90 percent of their original wire diameter and the rusted condition of the buoy. The buoy needs to be overhauled and the top jewelry replaced.

MOORING NO.: 78 CLASS: SPECIAL CARGO BOW/STERN LEGS 150K PEA LOCATION: DIEGO GARCIA LAT: 07° 17' 17.41" S LONG: 72° 28' 04.96" E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: MACKSTAY 100K PEA WATER DEPTH: 80-90' VISIBILITY: 10' BOTTOM TYPE: MUD/HARD MUD

DATE: 9 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80-	90+	80+	80-		
BUOY HARDWARE	BUOY 16' DIAM										FREEBOARD 33"/27", TOP DECK
	SWIVEL EYES (2)	4 1/4"		√√							RUSTY, SIDES HEAVIER RUST, ONE
	DETACHABLE LINKS (2)	3 1/2"		√√							CHAFING STRIP CUT AWAY FOR
	PEAR LINK (2)	2 3/4"			√√						MULTI-LINE SMALL BOAT USE. TOP
											JEWELRY SEVERE RUSTING (1/16" to 1/8"+)
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNG 010° GROUND LEG NO. A-1	UPPER END	2 1/2"	15"	√√√			√√√				EQUALIZERS SHOW NO
	MIDDLE			√√√			√√√			80'	MOVEMENT
	ENTERS BOTTOM			√√√			√√√			82'	ANODE ON WIRE TO WIRE CONNECTOR
BRNG 080° GROUND LEG NO. A-2	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM			√√√			√√√			88'	ANODE ON CHAIN TO WIRE CONNECTOR
BRNG 135° GROUND LEG NO. B-1	UPPER END	↓	↓	√√√			√√√				
	MIDDLE	2 3/4"	16 1/2"	√√√			√√√				
	ENTERS BOTTOM	2 3/4"	16 1/2"	√√√			√√√			89'	ANODE ON CHAIN TO WIRE CONNECTOR

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

MOORING NO.: 7S CLASS: SPECIAL, CARGO BOW/STERN LEGS 150K PEA LOCATION: DIEGO GARCIA LAT: 07°17'17.41"S LONG: 72°28'09.96"E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 85'-90' VISIBILITY: 10' BOTTOM TYPE: HARD MUD

DATE: 9 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80-	90+	80+	80-		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING N/A											
BRNG 145° GROUND LEG NO. B-2	UPPER END	2 1/2"	15'	√√√			√√√				CONTINUITY WIRE CONTINUOUS
	MIDDLE	2 3/4"	16 1/2"	√√√			√√√				ANODE ON WIRE TO WIRE CONNECTOR
	ENTERS BOTTOM	2 3/4"	16 1/2"	√√√			√√√			85'	CHAIN CLEAN FOR 10' OFF BOTTOM
BRNG 345° GROUND LEG NO. C-1	UPPER END	2 1/2"	15"	√√√			√√√				CONTINUITY WIRE CONTINUOUS. CHAIN
	MIDDLE	2 3/4"	16 1/2"	√√√			√√√				HARDWARE OK.
	ENTERS BOTTOM	↓	↓	√√√			√√√			89'	ANODE ON CHAIN TO WIRE CONNECTOR
BRNG 255° GROUND LEG NO. C-2	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			90'	ANODE ON CHAIN TO WIRE CONNECTOR

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

MOORING NO.: 75 CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT: 07°17'17.41" S LONG: 72°28'04.96" E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 80' VISIBILITY: 10' BOTTOM TYPE: HARD MUD 6'-10' SAND/SILT

DATE: 9 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER N/A	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING N/A											
BACKSTAY GROUND LEG NO. D	UPPER END	2"	12"	VVV			VVV			20'	CONTINUITY WIRE CONTINUOUS
	MIDDLE	↓	↓	VVV			VVV			50'	NO ANODE IN WATER COLUMN
	ENTERS BOTTOM	↓	↓	VVV			VVV			80'	BURIED AFTER TWO SHOTS. BOTTOM
GROUND LEG NO.B	UPPER END										ANODE OK
	MIDDLE										
	ENTERS BOTTOM										
GROUND LEG NO. C	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 8
BUOY 8N

Buoy

This is a non-riser buoy with a 16-foot diameter. Its freeboard measures 34 and 39 inches. The fenders and chafing strips are in good condition, but the top and sides of the buoy are heavily rusted. Some of the top jewelry measures less than 80 percent of their original wire diameter. The underwater portion of the buoy is covered with one-half inch of marine growth.

Anchor Chain Subassembly

This chain is in fair condition. The upper and lower sections of chain subassembly B-2 were measured to be within 80 and 90 percent of their original wire diameter.

Cathodic Protection System (CPS)

Anodes were installed on or near each wire rope anchor pendant. Low CPS readings (-.6 volts) were obtained on the last shot of chain in subassemblies A-2 and C-1. Previously installed anodes have eroded about one half of an inch.

Conclusions/Recommendations

This mooring is in fair condition due to anchor chain subassembly measurements between 80 and 90 percent of original wire diameters. This mooring must be downgraded and its holding capacity reduced to 125,000 pounds. The use of this mooring should be restricted until the worn top jewelry is removed or replaced. The buoy needs to be overhauled.

CHESNAVFACENGCOM REPORT FPU-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 8N CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 07° 19' 45.00" S LONG: 72° 28' 28.20" E

BUOY TYPE: NOW RISER (TELEPHONE) ANCHOR SIZE/TYPE: LEGS 150K PEA BACKSTAY 100K PEA WATER DEPTH: 82' VISIBILITY: 8' BOTTOM TYPE: MUD/SILT

DATE: 14 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16' DIAM										FREEBOARD 34"/39". FENDERS
	SWIVEL EYES (2)	4"			√√						GOOD. SIDES AND TOP RUSTED
	DETACHABLE LINKS (2)	3½"			√√						ONE HALF INCH MARINE GROWTH
	SPIDER PLATE (2)	3¼"				√√					ON BOTTOM.
	PEAR LINKS (4)	2½"				√√√√					
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRG 050° GROUND LEG NO. A-1	UPPER END	2½"	15"	√√√			√√√			20'	ANODES DOWN ½", CONTINUITY WIRE
	MIDDLE	2¾"	16½"	√√√			√√√			40'	GOOD CONDITION
	ENTERS BOTTOM	↓	↓	√√√			√√√			82'	ANODE CONNECTED WIRE TO WIRE.
BRG 060° GROUND LEG NO. A-2	UPPER END			√√√			√√√				LOW CPS READING NEAR LOWER
	MIDDLE			√√√			√√√				LEG SWIVEL (-.6).
	ENTERS BOTTOM			√√√			√√√			81'	ANODE CONNECTED WIRE TO WIRE
BRG 320° GROUND LEG NO. B-1	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				LOW CPS READING (-.7). LOOSE CHAIN ON BOTTOM.
	ENTERS BOTTOM	↓	↓	√√√			√√√			82'	ANODE CONNECTED WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 8N CLASS: CARGO SPECIAL BOW/STERN LEGS 150K PEA LOCATION: DIEGO GARCIA LAT 07° 17' 45.00" S LONG: 72° 28' 28.90 E

BUOY TYPE: NAV-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 80'-85' VISIBILITY: 10' BOTTOM TYPE: SILT

DATE: 14 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNG 230° GROUND LEG NO. B-2	UPPER END	2 3/4"	16 1/2"		√√√			√√√			
	MIDDLE	↓	↓	√√√			√√√				LOOSE CHAIN ON BOTTOM. ANODE
	ENTERS BOTTOM	↓	↓	√√	√		√√	√		82'	INSTALLED ON WIRE
BRNG 320° GROUND LEG NO C-1	UPPER END	↓	↓	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				LOW CPS READING (-6) BY LOWER
	ENTERS BOTTOM	↓	↓	√√√			√√√			80'	SWIVEL. ANODE INSTALLED ON WIRE
BRNG 330° GROUND LEG NO C-2	UPPER END	↓	↓	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			83'	ANODE CONNECTED AT WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 8N CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 07°17'45.00"S LONG: 72°28'28.90"E

BUOY TYPE: NAV-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PLW WATER DEPTH: 82' VISIBILITY: 10' BOTTOM TYPE: SILT

DATE: 14 MAY 84 ENGINEER-IN-CHARGE: J McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. D BACKSTAY	UPPER END	2"	12"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				SHINY LINKS ON BOTTOM. NO ANODE
	ENTERS BOTTOM	↓	↓	√√√			√√√			82'	INSTALLED DUE WIRE ROPE
GROUND LEG NO.B	UPPER END										BURIED BELOW CLUMP
	MIDDLE										
	ENTERS BOTTOM										
GROUND LEG NO. C	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

MOORING 8
BUOY 8S

Buoy

This is a non-riser buoy with a 16-foot diameter. Its freeboard measures about 30 inches and a light to moderate coat of rust on the top deck. The manhole covers are in poor condition due to heavy rust, and their 1 1/2-inch-diameter bolts have eroded to 1 inch. About 1/16 to 1/2 inch of rust covers the top hardware. The two spider plates and four pear links in the top jewelry measure less than 80 percent of original wire diameter. The wooden fenders and chafing strips are in good condition.

Anchor Chain Subassembly

All single and double link measurements were greater than 90 percent of original wire diameters.

Cathodic Protection System (CPS)

An anode was installed on or near each wire rope anchor pendant. The middle section of anchor chain subassembly B-2 and the lower portion of subassembly C-1 provided relatively low CPS readings (-.5 and -.66 volts respectively.) The continuity wires appear to be intact.

Conclusions/Recommendations

This mooring is in fair condition. Due to the poor buoy condition and top jewelry measurements of less than 80 percent, the use of this mooring should be restricted until the worn top jewelry is removed or replaced. The buoy needs to be overhauled.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 85 CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT: 07° 17' 51.09" S LONG: 72° 28' 35.06" E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA LEGS 150K PEA WATER DEPTH: 90' VISIBILITY: 15' BOTTOM TYPE: SILT

DATE: 16 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16.0' DIAM										FREEBOARD 32"/29", TOP DECK LIGHT
	SWIVEL EYES (2)	4"			√√						TO MODERATE RUST, MANHOLE COVERS
	DETACHABLE LINKS (2)	3½"			√√						POOR DUE RUST. 1½" BOLTS RUSTED TO
	SPIDER PLATE (2)	3¼"				√√					1". TOP HARDWARE RUSTING AWAY.
	PEAR LINKS (4)	2¾"				√√√					ABOUT 1/16" TO ½" THICK RUST. FENDERS
RISER NA	NEAR BUOY										AND CHAFING STRIPS OK.
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNG 040° GROUND LEG NO. A-1	UPPER END	2½"	15"	√√√			√√√				
	MIDDLE	2¾"	16½"	√√√			√√√				HEAVY SILT COVERS LAST SHOT.
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			90'	ANODE CONNECTED CHAIN TO WIRE
BRNG 050° GROUND LEG NO. A-2	UPPER END	2½"	15"	√√√			√√√				
	MIDDLE	2¾"	16½"	√√√			√√√				CHAIN LOOSE ON BOTTOM
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			90'	ANODE CONNECTED AT CHAIN TO WIRE.
BRNG 145° GROUND LEG NO. B-1	UPPER END	2½"	15"	√√√			√√√				ANODES DOWN 2"-3".
	MIDDLE	2¾"	16½"	√√√			√√√				
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			90'	ANODE CONNECTED AT CHAIN TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

MOORING NO.: 8S CLASS: SPECIAL CARGO BOW/STEERN LEGS 150k PEA LOCATION: DIEGO GARCIA LAT: 07°17'51.09"S LONG: 72°28'35.06"E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100k PEA WATER DEPTH: 90' VISIBILITY: 15' BOTTOM TYPE: CLAY W/SILT

DATE: 16 MAY 84 ENGINEER-IN-CHARGE: J. M^CLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNG 155° GROUND LEG NO. B-2	UPPER END	2½"	15"	√√√			√√√				ANODES/CONTINUITY WIRE OK.
	MIDDLE	2¾"	16½"	√√√			√√√			52'	LOW CPS READING (-.5), LOOP IN LEG.
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			90'	ANODE CONNECTED CHAIN TO WIRE
BRNG 232° GROUND LEG NO. C-1	UPPER END	2½"	15"	√√√			√√√				
	MIDDLE	2¾"	16½"	√√√			√√√				
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			83'	ANODE CONNECTED WIRE TO WIRE
BRNG 245° GROUND LEG NO. C-2	UPPER END	2½"	15"	√√√			√√√				LOW CPS READING (-.66) NEAR ANODE
	MIDDLE	2¾"	16½"	√√√			√√√				
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			82'	ANODE CONNECTED AT WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

MOORING NO.: 8S CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 07° 17' 51.09" S LONG: 72° 28' 35.06" E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 85' VISIBILITY: 15' BOTTOM TYPE: SILT

DATE: 16 MAY 84 ENGINEER-IN-CHARGE: J. H. C LAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BEAR 331° GROUND LEG NO. D BACKSTAY	UPPER END	2"	12"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			85'	LEG BURIED
GROUND LEG NO. B	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										
GROUND LEG NO. C	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

MOORING 9
BUOY 9N

Buoy

This is a non-riser buoy with a 16-foot diameter. Its freeboard measures 27 and 33 inches. A 5-foot section of the upper wooden fender is loose, and the below water hull is covered with about a half inch of marine growth. Two detachable links and two pear links in the top jewelry measured between 80 and 90 percent and less than 80 percent respectively.

Anchor Chain Subassembly

Single and double link measurements of this chain were all greater than 90 percent of the original wire diameter.

Cathodic Protection System (CPS)

Approximately 1 inch of previously installed anodes have been depleted. The continuity cable appears to be in satisfactory condition. One anode was installed on or near the wire rope anchor pendant. CPS readings were between -.78 and -.985 volts. The CPS appears to be working effectively.

Conclusions/Recommendations

Because the top jewelry measured less than 80 percent, the use of this mooring should be restricted until the top jewelry is replaced. The buoy needs to be overhauled during the next maintenance period.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 9N CLASS: SPECIAL CARGO BOW/STERN LEGS 150K PEA LOCATION: DIEGO GARCIA LAT: 07°17'44.83"S LONG: 72°23'34.38"E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 98' VISIBILITY: 15' BOTTOM TYPE: LIGHT SILT OVER CORAL

DATE: 20 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

	COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
				LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
					90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16' DIAMETER											FREEBOARD 27"/33", ONE 5' SECTION
	SWIVEL EYES (2)		4"		√√							OF UPPER FENDER IS LOOSE, ½"
	DETACHABLE LINKS (2)		3¾"			√√						MARINE GROWTH ON BUOY BOTTOM,
	PEAR LINKS (2)		2½"				√√					CUT AWAY LINES AND CABLES FROM
												BUOY TOP JEWELRY. TWO DETACH LINKS
RISER NA		NEAR BUOY										MARKED 3½" BUT MEASURED 3¾"
		MIDDLE										
		NEAR GRD RG										
GROUND RING NA												
BEAR 055° GROUND LEG NO A-1		UPPER END	2½"	16"	√√√			√√√				CHAIN HITS BOTTOM AT 98' THEN
		MIDDLE			√√√			√√√				GOES UPHILL TO 70' WHERE ANCHOR IS
		ENTERS BOTTOM			√√√			√√√			98'	ANODE CONNECTED AT WIRE TO WIRE,
BEAR 070° GROUND LEG NO A-2		UPPER END			√√√			√√√				
		MIDDLE			√√√			√√√				CONTINUITY WIRE OK
		ENTERS BOTTOM			√√√			√√√			98'	ANODE CONNECTED AT WIRE TO WIRE.
BEAR 235° GROUND LEG NO B-1		UPPER END			√√√			√√√				OLD ANODES LOOK GOOD
		MIDDLE			√√√			√√√				
		ENTERS BOTTOM	↓	↓	√√√			√√√			96'	ANODE CONNECTED AT WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 9N CLASS: SPECIAL CARGO Bow/Stern LOCATION: DIEGO GARCIA LAT: 07° 17' 44.835" LONG: 72° 27' 38.38" E

BUOY TYPE: Non-Riser (Telephone) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA LEGS 150K PEA WATER DEPTH: 100' VISIBILITY: 15' BOTTOM TYPE: LIGHT SILT OVER CORAL

DATE: 20 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80−	90+	80+	80−		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNG 235° GROUND LEG NO. B-2	UPPER END	2½"	15"	√√√			√√√				
	MIDDLE	2½"	15"	√√√			√√√				ANODES DOWN 1"
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			96'	ANODE CONNECTED WIRE TO WIRE
BRNG 335° GROUND LEG NO. C-1	UPPER END	2½"	15"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				ANODES/CONTINUITY WIRE OK
	ENTERS BOTTOM			√√√			√√√			100'	ANODE CONNECTED WIRE TO WIRE
BRNG 335° GROUND LEG NO. C-2	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM	2¾"	16½"	√√√			√√√			100'	ANODE CONNECTED WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

MOORING NO.: 9N CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 07° 17' 44.83" S LONG: 72° 27' 34.38" E

BUOY TYPE: NAV. RISER/TELEPHONE ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 106' VISIBILITY: 15' BOTTOM TYPE: LIGHT SILT OVER CORAL

DATE: 20 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 of 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRNS 149° GROUND LEG NO. D BACKSTAY	UPPER END	2"	12"	√√√			√√√				CONTINUITY WIRE AND HARDWARE OK
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM			√√√			√√√			106'	ANODE CONNECTED WIRE TO WIRE
GROUND LEG NO.B	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										
GROUND LEG NO. C	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

MOORING 9
BUOY 9S

Buoy

This is a non-riser buoy with a 16-foot diameter and a freeboard of about 23 inches. The top deck has severe rusting (as much as 1/2-inch deep) and the manhole cover bolts have been reduced by 1/4-inch due to rusting. The top jewelry is badly corroded with some measurements less than 80 percent of its original wire diameter. The chafing strip shows evidence of rubbing wear. About 21 feet of the upper fender is missing and the plug for a 3-inch-diameter pipe vent on the upper deck of the buoy is missing.

Anchor Chain Subassembly

Some links of subassemblies B-2 and C-2 measured between 80 and 90 percent of original wire diameters. The remaining subassemblies measured greater than 90 percent.

Cathodic Protection System (CPS)

The continuity wires appear to be intact. An anode was installed on or near each wire rope anchor pendant. A low CPS reading (-.404 volts) was noted near the lower swivel in anchor chain subassembly C-2. The remaining readings were between -.905 and -.994 volts and show the CPS to be working effectively.

Conclusions/Recommendations

Because the top jewelry measured less than 80 percent, the use of this mooring should be restricted until this top jewelry is replaced. A plug for the 3-inch pipe on top of the buoy should be acquired and installed as soon as practical. In addition, due to anchor chain subassembly measurements between

80 and 90 percent of original wire diameters, this mooring must be downgraded and its holding capacity reduced to 125,000 pounds. The buoy should be overhauled during the next maintenance period.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 95 CLASS: SPECIAL CAEGO BOW/STERN LOCATION: DIEGO GARCIA LAT: 07° 17' 50.45" S LONG: 72° 27' 40.30" E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 1500K PEA LEGS 1500K PEA WATER DEPTH: 103' VISIBILITY: 10' BOTTOM TYPE: SILT OVER CORAL

DATE: 18 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16' DIAMETER										FREEBOARD 24"/22". AN 8 FT² AREA
	SWIVEL EYES (2)	4"		✓							OF TOP DECK HAS SEVERE RUST (1/4").
	DETACHABLE LINKS (2)	3"			✓✓						A 2 FT² SECTION HAS 1/2" DEEP RUST.
	SPIDER PLATES (2)	3"				✓✓					MANHOLE BOLTS REDUCED BY 1/4". ALL
	PEAR LINKS (4)	2 3/4"				✓✓✓					JEWELRY BADLY CORRODED (AS MUCH
RISER NA	NEAR BUOY										AS 5/8"). CHAFING STRIP HAS SOME
	MIDDLE										RUBBING WEAR. 21' OF UPPER
	NEAR GRD RG										FENDER MISSING. 3" PIPE PLUG
GROUND RING NA											MISSING.
BRNG 060° GROUND LEG NO. A-1	UPPER END	2 1/2"	15"	✓✓✓			✓✓✓				
	MIDDLE	2 3/4"	16 1/2"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			103'	SWIVEL 30' AFTER CHAIN HITS BOTTOM. ANODE
BRNG 070° GROUND LEG NO. A-2	UPPER END	↓	↓	✓✓✓			✓✓✓				CONNECTED AT CHAIN TO WIRE
	MIDDLE	2 1/2"	15"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2 1/2"	15"	✓✓✓			✓✓✓			102'	ANODE INSTALLED ON WIRE
BRNG 153° GROUND LEG NO. B-1	UPPER END	2 3/4"	16 1/3"	✓✓✓			✓✓✓				CONTINUITY WIRE STARTS BELOW EQUALIZER
	MIDDLE	↓	↓	✓✓✓			✓✓✓				C/WIRE, CHAIN, ANODES GOOD
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			97'	ANODE CONNECTED AT WIRE TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 98 CLASS: SPECIAL CARGO BUOY/STERN LOCATION: DIEGO GARCIA LAT 07°17'50.45"S LONG: 72°27'40.20"E

BUOY TYPE: NON-RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY 100K PEA LEGS 150K PEA WATER DEPTH: 103' VISIBILITY: 10' BOTTOM TYPE: SILT OVER CORAL

DATE: 18 MAY 89 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BRG 159° GROUND LEG NO. B-2	UPPER END	2½"	15"	VVV			VVV				CONTINUITY WIRE STARTS AT 60'
	MIDDLE	2¾"	16½"	VVV			VVV				SHINY LINKS ON BOTTOM. CLUMPS TOGETHER
	ENTERS BOTTOM	2½"	15"	VV	V		VV	V		97'	ANODE CONNECTED AT WIRE TO WIRE
BRG 223° GROUND LEG NO. C-1	UPPER END	2½"	15"	VVV			VVV				
	MIDDLE	2¾"	16½"	VVV			VVV				CONTINUITY WIRE/CLUMPS OK.
	ENTERS BOTTOM	2½"	15"	VVV			VVV			103'	ANODE CONNECTED TO WIRE.
BRG 335° GROUND LEG NO. C-2	UPPER END	2½"	15"	VV	V		VV	V			LOW CPS READING ABOVE BOTTOM SWIVEL
	MIDDLE	2¾"	16½"	VV	V		VV	V			LOOSE CHAIN ON BOTTOM
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			100'	ANODE CONNECTED CHAIN TO WIRE

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 95 CLASS: SPECIAL CARGO BOW/STERN LOCATION: DIEGO GARCIA LAT 07° 17' 50.45" S LONG: 72° 27' 40.20" E

BUOY TYPE: NON RISER (TELEPHONE) ANCHOR SIZE/TYPE: BACKSTAY HOOK PEA WATER DEPTH: 106' VISIBILITY: 15' BOTTOM TYPE: SILT OVER CORAL

DATE: 18 MAY 84 ENGINEER-IN-CHARGE: J. M^C LAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BOAG 325 GROUND LEG NO. D BACKSTAY	UPPER END	2"	12"	VVV			VVV				
	MIDDLE	↓	↓	VVV			VVV				
	ENTERS BOTTOM	↓	↓	VVV			VVV			106'	ANODE CONNECTED AT WIRE TO WIRE
GROUND LEG NO. B	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										
GROUND LEG NO. C	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

A.3 TENDER FREE SWINGING MOORING

Fleet Mooring 10 is the only Tender free swinging mooring installed at Diego Garcia. This mooring consists of a single 16-foot telephone buoy, four 2-3/4-inch equalizers attached to the buoy padeyes and four ground leg pairs. Each leg of a leg pair consists of 3 1/2 shots of chain, 25,000 pounds of sinkers, 170 feet of 2 1/4-inch wire rope, and a 150 KIP propellant embedment anchor. The design of this mooring is identical to that of each of the Cargo Bow/Stern buoy systems with the exception that this mooring has a fourth leg pair instead of a backstay leg. Figure A-3 is an isometric drawing of this mooring.

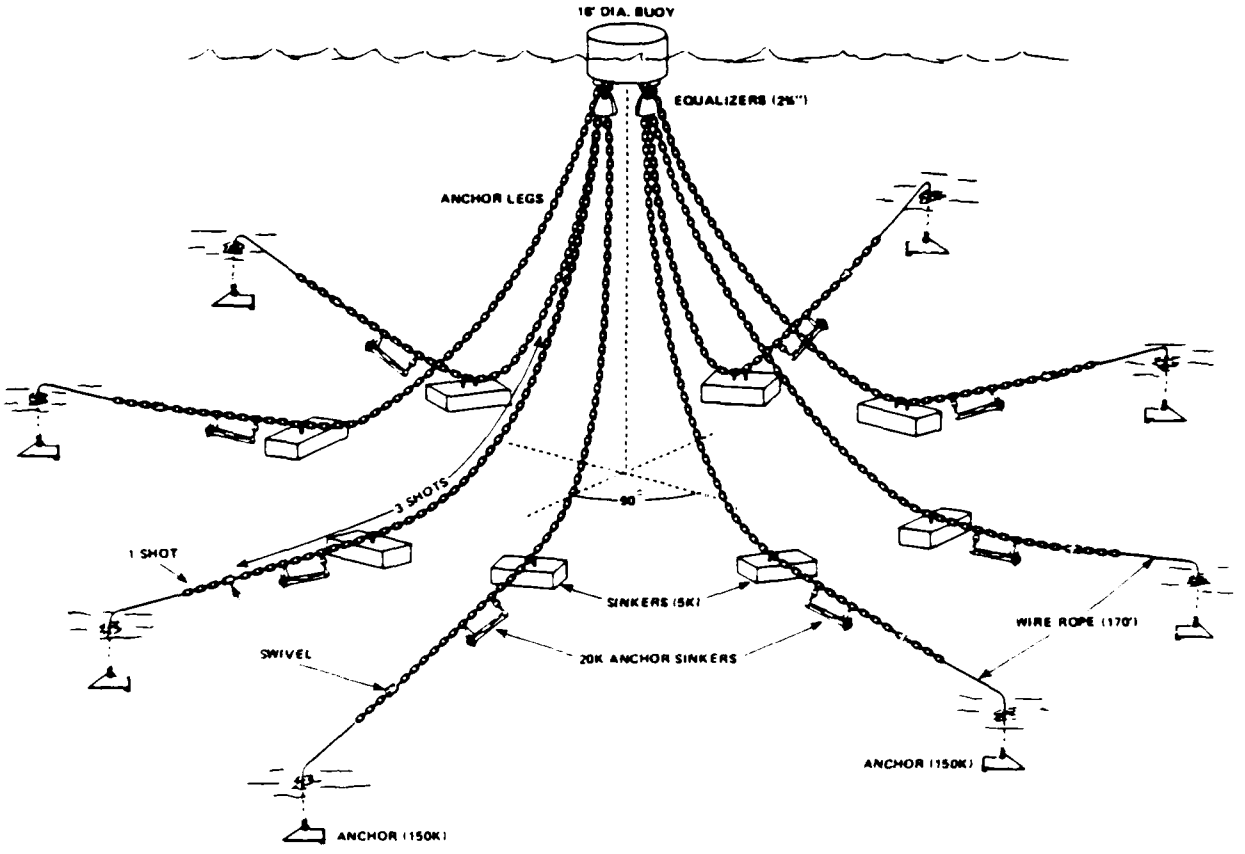


FIGURE A-3. TENDER FREE SWINGING MOORING

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 10

Buoy

This is a 16-foot-diameter non-riser type buoy with a freeboard of 25 to 28 inches. About 25 feet of the top fender are missing and another 15 feet are damaged. The top deck has medium rust blisters and the manhole hatch cover and bolts are severely rusted. Two detachable links in the top jewelry were measured to be between 80 and 90 percent of original diameter while two pear links measured less than 80 percent.

Anchor Chain Subassembly

The four chain equalizers are in good condition but show no evidence of chain movement. All single- and double-link measurements were greater than 90 percent of original wire diameter. All subassemblies have loose chain lying on the bottom. There is a loop in subassembly C-2.

Cathodic Protection System (CPS)

All continuity cables appear to be intact. No CPS readings were taken.

Conclusions/Recommendations

This mooring is scheduled to be removed from service in the near future. Because the top jewelry measured less than 80 percent, the use of this mooring should be restricted until the top jewelry is replaced or the mooring removed.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 10 CLASS: TENDER FREE SWING LOCATION: DIEGO GARCIA LAT 07°12'05.0"S LONG: 72°25'29.96"E

BUOY TYPE: NEW-RISER (TELEPHONE) ANCHOR SIZE/TYPE: 150K FEA WATER DEPTH: 92' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO / NSF (HARBOR OPS)

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 16' DIAMETER										FREEBOARD 28"/25", TOP CHAFING
	SWIVEL EYES (2)	3 3/4"		VV							STRIPS OK. 25' OF FENDER
	DETACHABLE LINKS (2)	3 1/2"			VV						MISSING. ANOTHER 15' DAMAGED.
	PEAR LINKS (2)	2 1/4"				JJ					MEDIUM TOP DECK RUST BLISTERS
											MANHOLE BOLTS AND HATCH SEVERLY
RISER NA	NEAR BUOY										RUSTED.
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. A-1	UPPER END	2 1/2"	15"	VVV			VVV				ALL FOUR (4) EQUALIZERS OK, BUT
	MIDDLE	2 3/4"	16 1/2"	VVV			VVV				NO EVIDENCE OF MOVEMENT.
	ENTERS BOTTOM	2 3/4"	16 1/2"	VVV			VVV			92'	LOOSE CHAIN ON BOTTOM
GROUND LEG NO. A-2	UPPER END	2 1/2"	15"	VVV			VVV				
	MIDDLE	2 3/4"	16 1/2"	VVV			VVV				ROPE AND FLOAT ON LAST SHOT
	ENTERS BOTTOM	2 3/4"	16 1/2"	VVV			VVV			92'	LOOSE CHAIN ON BOTTOM
GROUND LEG NO. B-1	UPPER END	2 1/2"	15"	VVV			VVV				
	MIDDLE	2 3/4"	16 1/2"	VVV			VVV				CONTINUITY WIRE OK
	ENTERS BOTTOM	2 3/4"	16 1/2"	VVV			VVV			90'	LOOSE CHAIN ON BOTTOM

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 10 CLASS: TENDER FREE SWING LOCATION: DIEGO GARCIA LAT: 07°17'05.60"S LONG: 72°25'29.96"E

BUOY TYPE: Non-Riser (TELEPHONE) ANCHOR SIZE/TYPE: 15OK PEA WATER DEPTH: 96' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J M^C LAUGHLIN DIVERS: UCT TWO / NSF (HARBOR OPS)

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. B-2	UPPER END	2½"	15"	VVV			VVV				
	MIDDLE	2¾"	16½"	VVV			VVV				
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			96'	WIRE ROPE / PENDANT OK
BEAR 240° GROUND LEG NO. C-1	UPPER END	2½	15"	VVV			VVV				
	MIDDLE			VVV			VVV				LOOP IN CHAIN LEG. LOOSE CHAIN ON
	ENTERS BOTTOM			VVV			VVV			90'	BOTTOM. LAST SHOT MARKED.
BEAR 255° GROUND LEG NO. C-2	UPPER END			VVV			VVV				
	MIDDLE			VVV			VVV				
	ENTERS BOTTOM			VVV			VVV			90'	LOOSE CHAIN ON BOTTOM

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 10 CLASS: TENDER FREE SWING LOCATION: DIEGO GARCIA LAT 07° 17' 05.60" S LONG: 72° 25' 29.96" E

BUOY TYPE: NON-R (SEE TELEPHONE) ANCHOR SIZE/TYPE: 150K PEA WATER DEPTH: 90' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO / NSF (HARBOR OPS)

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 3										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
BEAR 330° GROUND LEG NO. D-1	UPPER END	2½"	15"	✓✓✓			✓✓✓				
	MIDDLE	2½"	15"	✓✓✓			✓✓✓				CLUMPS AND SWIVEL OK
	ENTERS BOTTOM	2¾"	16½"	✓✓✓			✓✓✓			90'	
GROUND LEG NO. D-2	UPPER END	2½"	15"	✓✓✓			✓✓✓				
	MIDDLE	2½"	15"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2¾"	16½"	✓✓✓			✓✓✓			90'	ROPE AND FLOAT ON LAST SHOT
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 3 OF 3

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

A.4 TENDER BOW/STERN MOORING

The Tender bow/stern mooring consists of four buoy systems (Buoy 11NE, 11SE, 11SW, and 11NW). Each buoy system consists of a non-riser buoy and a large (3 1/4") equalizer attached to one of the buoy's padeyes. A shot of 3-1/4-inch chain passes through this equalizer, with a 2 3/4-inch equalizer attached to each end of the chain. A ground leg pair passes through each of these equalizers. Each leg of a leg pair contains 3 1/2-shots of chain, 25,000 pounds of sinkers, 170 feet of 2 1/4-inch wire rope, and a 150 KIP embedment anchor. In addition, each buoy has a two-shot backstay leg attached to the padeye opposite the one connected to the larger equalizer. The lower three shots of each half of a leg pair and the backstay leg are cathodically protected. Figure A-4 is an isometric view of each of the four buoy systems comprising this mooring.

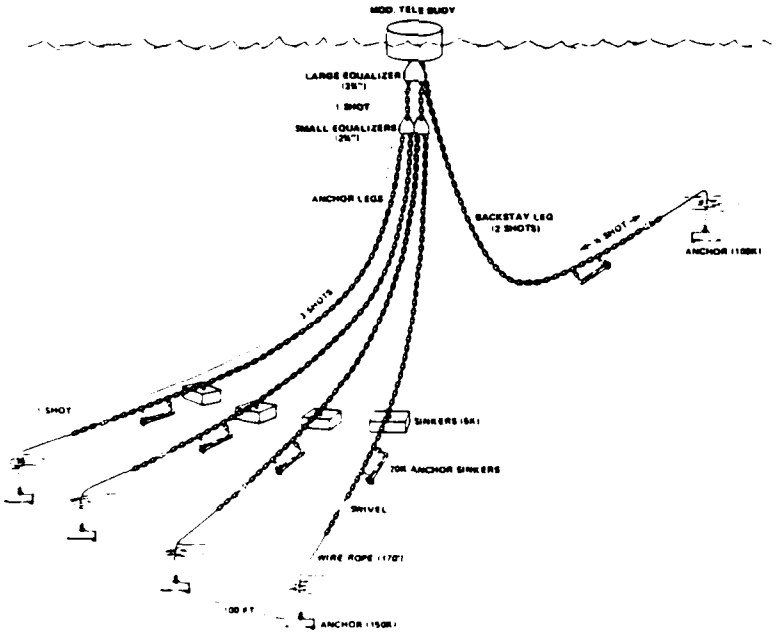


FIGURE A-4. TENDER BOW/STERN MOORING

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 11

BUOY LINE

Buoy

This is a 16-foot-diameter modified non-riser type buoy. The top deck is rust covered and the four shackles in the top jewelry are corroded to between 80 and 90 percent of their original wire diameter.

Anchor Chain Subassembly

This chain is in satisfactory condition. All single- and double-link measurements taken were greater than 90 percent of the original 2 3/4-inch wire diameter.

Cathodic Protection System (CPS)

The wire rope continuity cables are intact and the previously installed anodes have eroded about three-fourths of an inch from their original size. The CPS appears to be working effectively.

Conclusions/Recommendations

This buoy system is scheduled for removal from service in the near future. However, if it is to be utilized prior to removal, the worn top jewelry should be replaced.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11NE CLASS: TENDER BOW/STERN LOCATION: DIEGO GARCIA LAT: 07° 16' 40.20" S LONG: 72° 24' 56.39" E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: 150K PEA WATER DEPTH: 94' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80−	90+	80+	80−		
BUOY HARDWARE	BUOY (16' DIAMETER)										MODIFIED NON-RISER. MEDIUM
	SHACKLES (4)	4"									RUST ON TOP DECK. FOUR 4"
											SHACKLES IN TOP JEWELRY
											WORN TO 80-90 PERCENT OF
											ORIG. SIZE.
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. A-1	UPPER END	2 3/4"	16 1/2"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				ANODE DOWN 1/2" TO 3/4". SOME CHAIN
	ENTERS BOTTOM			√√√			√√√			94'	IN TENSION.
GROUND LEG NO. A-2	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				
	ENTERS BOTTOM			√√√			√√√			94'	LOOSE CHAIN ON BOTTOM
GROUND LEG NO. B-1	UPPER END			√√√			√√√				
	MIDDLE			√√√			√√√				ANODES DOWN 3" to 3 1/2"
	ENTERS BOTTOM			√√√			√√√			90'	LOT OF LOOSE CHAIN ON BOTTOM

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

MOORING NO.: 11NE CLASS: TENDER BOW/STERN LEG 150K PEA LOCATION: DIEGO GARCIA LAT: 07°16'49.20"S LONG: 72°24'56.39"E

BUOY TYPE: MOD. NON-RIDER ANCHOR SIZE/TYPE: BACKSTAY 100K PEA WATER DEPTH: 98' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J.M^CLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 2										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. B-2	UPPER END	2 3/4"	16 1/2"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			98'	
GROUND LEG NO. BACKSTAY	UPPER END	2"	12"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				ANODES DOWN ABOUT 30%
	ENTERS BOTTOM	↓	↓	√√√			√√√			92'	
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 11

BUOY 11NW

Buoy

This is a 16-foot-diameter modified non-riser type buoy. The top deck is rust covered and the four shackles in the top jewelry are corroded to between 80 and 90 percent of their original wire diameter.

Anchor Chain Subassembly

This chain is in satisfactory condition. All single- and double-link measurements taken were greater than 90 percent of the original 2 3/4 inch wire diameter.

Cathodic Protection System (CPS)

The wire rope continuity cables are intact and the previously installed anodes have eroded about three-fourths of an inch from their original size. The CPS appears to be working effectively.

Conclusions/Recommendations

This buoy system is scheduled for removal from service in the near future. However, if it is to be utilized prior to removal, the worn top jewelry should be replaced.

CHESNAVFACENGCOM REPORT FPU-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11NW CLASS: TENDER BOW/STERN LOCATION: DIEGO GARCIA LAT 07°16'48.14"S LONG 72°24'57.65"E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: 150K PEA WATER DEPTH: 92' VISIBILITY: 10'-15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY (16' DIAMETER)										MODIFIED NON-RISER. MEDIUM
	SHACKLES (4)	4"									RUST ON TOP DECK. SHACKLES
											IN TOP JEWELRY RUSTED TO
											80-90 PERCENT OF ORIG.
											SIZE.
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. A-1	UPPER END	2¾"	16½"	✓✓✓			✓✓✓				LEG A EQUALIZER LOWER THAN
	MIDDLE			✓✓✓			✓✓✓				LEG B EQUALIZER.
	ENTERS BOTTOM			✓✓✓			✓✓✓			90'	
GROUND LEG NO. A-2	UPPER END			✓✓✓			✓✓✓				
	MIDDLE			✓✓✓			✓✓✓				
	ENTERS BOTTOM			✓✓✓			✓✓✓			92'	
GROUND LEG NO. B-1	UPPER END			✓✓✓			✓✓✓				LEG B EQUALIZER HIGHER
	MIDDLE			✓✓✓			✓✓✓				THAN LEG A EQUALIZER.
	ENTERS BOTTOM	↓	↓	✓✓✓			✓✓✓			91'	

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11 NW CLASS: TENDER BOW/STERN LOCATION: DIEGO GARCIA LAT 07° 16' 48.14" S LONG: 72° 24' 57.65" E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: LEG 150K PEA BACKSTAY KOOK PEA WATER DEPTH: 91' VISIBILITY: 10'-15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80−	90+	80+	80−		
BUOY HARDWARE	SEE SHEET 1 OF 2										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. B-2	UPPER END	2 3/4"	16 1/2"	VVV			VVV				
	MIDDLE			VVV			VVV				
	ENTERS BOTTOM			VVV			VVV			91'	
GROUND LEG NO. BACKSTAY	UPPER END	2"	12"	VVV			VV				
	MIDDLE			VVV			VVV				
	ENTERS BOTTOM			VVV			VVV			91'	CHAIN IS LOOSE AND PILED ON BOTTOM.
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING 11
BUOY 11SE

Buoy

This is a 16-foot-diameter modified non-riser type buoy. The top deck is rust-covered and the four shackles in the top jewelry were measured to be between 80 and 90 percent of their original wire diameter.

Anchor Chain Subassembly

This chain is in satisfactory condition. All single- and double-link measurements were greater than 90 percent of the original 2 3/4-inch wire diameter.

Cathodic Protection System (CPS)

The wire rope continuity cables are intact and the previously installed anodes have eroded about three-fourths of an inch from their original size. The CPS appears to be working effectively.

Conclusions/Recommendations

This buoy system is scheduled for removal from service in the near future. However, if it is to be utilized prior to removal, the worn top jewelry should be replaced.

CHESNAVFACENGCOM REPORT FPU-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11SE CLASS: TENDER BOW STERN LOCATION: DIEGO GARCIA LAT 07°16'47.05"S LONG: 72°84'50.83"E

BUOY TYPE: MOD. NDW-RISER ANCHOR SIZE/TYPE: 15K PEA WATER DEPTH: 92' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 24MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY (16' DIAMETER)										MEDIUM RUST ON TOP DECK.
	SHACKLES (4)	4"									SHACKLES RUSTED TO
											BETWEEN 80 AND 90 PERCENT
											OF ORIG SIZE
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. A-1	UPPER END	2½"	15"	VVV			VVV				
	MIDDLE	2½"	15"	VVV			VVV				
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			92'	
GROUND LEG NO. A-2	UPPER END	2½"	15"	VVV			VVV				EQUALIZER IS AT 40' - CLOSER TO THE
	MIDDLE	2½"	15"	VVV			VVV				SURFACE THAN THE ONE IN LEG B
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			92'	
GROUND LEG NO. B-1	UPPER END	2½"	15"	VVV			VVV				
	MIDDLE	2½"	15"	VVV			VVV				
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			92'	

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11SE CLASS: TENDER BOW STERN LEG 150K PEA LOCATION: DIEGO GARCIA LAT: 07°16'47.05"S LONG: 72°24'50.83"E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: BACKSTAY 150K PEA WATER DEPTH: 92' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 24 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 2										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. B-2	UPPER END	2½"	15"	VVV			VVV				
	MIDDLE	2½"	15"	VVV			VVV				
	ENTERS BOTTOM	2¾"	16½"	VVV			VVV			92'	LEGS CROSS AT BOTTOM
GROUND LEG NO. BACKSTAY	UPPER END	2"	12"	VVV			VVV				
	MIDDLE	↓	↓	VVV			VVV				
	ENTERS BOTTOM	↓	↓	VVV			VVV			91'	EXTRA LARGE CLUMP AFT OF ANCHOR
GROUND LEG NO.	UPPER END										CLUMP
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 2

MOORING 11

BUOY 11SW

Buoy

This is a 16-foot-diameter modified non-riser type buoy. The top deck is covered with medium rust and about 20 feet of one of the chafing strips has been sheared off. Four 4-inch shackles in the top jewelry are badly corroded and measured to be 3 1/2 inches or about 87 percent of their original wire diameter.

Anchor Chain Subassembly

This chain is in satisfactory condition. All single and double link measurements were greater than 90 percent of the original wire diameter. The chain used in the subassemblies is a mixture of 2 1/2- and 2 3/4-inch wire diameters.

Cathodic Protection System (CPS)

The continuity cables are intact and the previously installed anodes are in good condition. These anodes have eroded about 1/2 inch from their original size. The CPS appears to be working effectively.

Conclusions/Recommendations

This buoy system is scheduled for removal from service in the near future. However, if it is to be utilized prior to removal, the worn top jewelry should be replaced.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO: 11 SIN CLASS: SPECIAL BOW STERN LOCATION: DIEGO GARCIA LAT: 07°16'46.26"S LONG: 72°24'54.00"E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: 150K PEA WATER DEPTH: 96' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY (16' DIAMETER)										MEDIUM RUST ON TOP DECK. 20' OF CHAFING STRIP SHEARED OFF. FOUR 4" SHACKLES IN TOP JEWELRY CORRODED - NOW DOWN TO 3½", 80-90 PERCENT OF ORIG.
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. A-1	UPPER END	2¾"	16½"	√√√			√√√				
	MIDDLE	2¾"	16½"	√√√			√√√				
	ENTERS BOTTOM	2½"	15"	√√√			√√√			96'	
GROUND LEG NO. A-2	UPPER END	2¾"	16½"	√√√			√√√				
	MIDDLE	2¾"	16½"	√√√			√√√				
	ENTERS BOTTOM	2½"	15"	√√√			√√√			96'	
GROUND LEG NO. B-1	UPPER END	2¾"	16½"	√√√			√√√				
	MIDDLE	↓	↓	√√√			√√√				
	ENTERS BOTTOM	↓	↓	√√√			√√√			95'	

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: 11SW CLASS: TENDER BOW/STERN LOCATION: DIEGO GARCIA LAT 07°16'41.26"S LONG 72°24'54.00"E

BUOY TYPE: MOD. NON-RISER ANCHOR SIZE/TYPE: BACKSTAY LOOK PEA LEG 15DK PEA WATER DEPTH: 95' VISIBILITY: 15' BOTTOM TYPE: CORAL

DATE: 25 MAY 84 ENGINEER IN CHARGE: J. McLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	SEE SHEET 1 OF 2										
RISER NA	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING NA											
GROUND LEG NO. B-2	UPPER END	2 3/4"	16 1/2"	VVV			VVV				
	MIDDLE			VVV			VVV				
	ENTERS BOTTOM			VVV			VVV			95'	
GROUND LEG NO. BACKSTAY	UPPER END	2"	12"	VVV			VVV				
	MIDDLE			VVV			VVV				
	ENTERS BOTTOM			VV			VVV			95'	
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 2 OF 2

A-5

BUOY DOLPHIN MOORING SYSTEM

Each Buoy Dolphin system contains a standard peg-top buoy, modified by the addition of a skirt which gives the buoy a cylindrical shape which provides greater buoyancy. Each buoy was filled with foam.

Each of the two systems contains a riser assembly, ground ring, and five legs - a single ground leg, a ground leg pair through an equalizer, and two backstay legs attached to a spider plate. The lower end of each of the five legs is attached to a 2-inch wire rope anchor pendant leading to a 100 KIP propellant embedment anchor. See Figure A-5 for layout of the legs.

Both Buoy Dolphin systems are cathodically protected. There are two anodes attached by brackets to the bottom of each buoy and two attached to the 20K anchor clump shackled to each chain leg. Wire rope continuity cable (3/4") is weaved through each of the five legs and clamped to the chain and to the anodes on the anchor clumps.

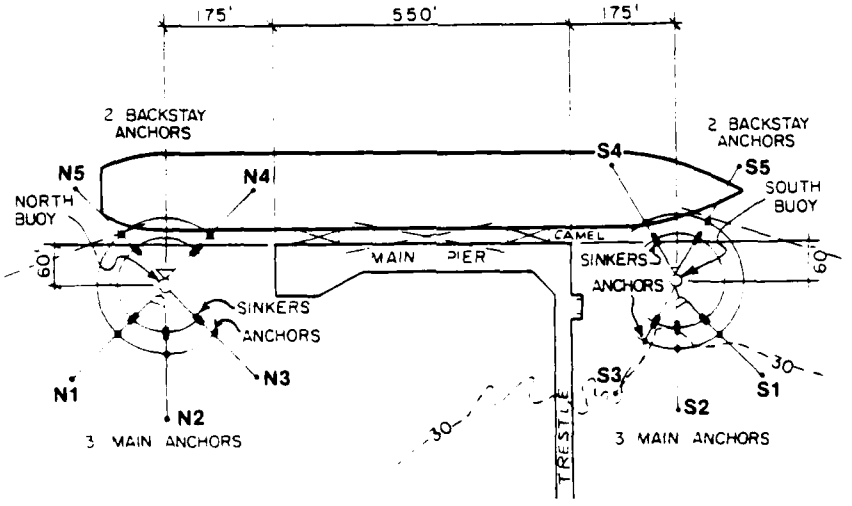


FIGURE A-5. POL PIER MOORING SITE LAYOUT

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

BUOY POL-N

Buoy

This is a 12-foot by 9 1/2-foot modified peg-top buoy. The freeboard is 31 to 47 inches. The metal retaining bands are missing from the fenders and the chafing strips and have fallen down the riser. The hawsepipe and rubbing casting are in satisfactory condition, but the buoy sides and top deck are rusted. The two shackles in the top jewelry are worn to between 80 and 90 percent of their original wire diameters.

Riser Chain Subassembly

Single- and double-link measurements were all greater than 90 percent of original wire diameter. The ground ring was located at a depth of 12 feet.

Anchor Chain Subassembly

These subassemblies consist of 2 1/4- and 2 1/2-inch chain. All chain link measurements taken were greater than 90 percent.

Cathodic Protection System (CPS)

Anodes were installed on the wire rope pendant where visible or on the last length of chain when the wire rope was buried. CPS readings were between -.785 and -1.005 volts and the system appears to be working effectively.

Conclusions/Recommendations

The buoy should be overhauled and the top jewelry replaced. Otherwise, the mooring is in satisfactory condition for continued use. The retaining band that has fallen down the riser should be removed during the next scheduled maintenance period.

CHESNAVFACENGCOM REPORT FPU-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: POL-N CLASS: BUOY DOLPHIN LOCATION: DIEGO GARCIA LAT: — LONG: —

BUOY TYPE: MOD. PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: N1 52' N2 58' VISIBILITY: 3' BOTTOM TYPE: SILT OVER CORAL AND SAND

DATE: 8 MAY 84 ENGINEER-IN-CHARGE: J. McLAUGHLIN DIVERS: UCT TWO / NSF (HARBOR OPS)

COMPONENTS		GAUGE SIZE	CONDITION							COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12'x9'6"										FREEBOARD 47"/31". METAL CONTAIN-
	CHAIN LINK	3½"		✓							MENT BAND MISSING FROM BOTH
	AJL	4"	24"								FENDERS AND CHAFING STRIPS. BUOY
	SHACKLE	2½"			✓						SIDES AND TOP RUSTED. HAWSEPIPE
	F-SHACKLE W/LUGS	3½"	22¼"		✓						RUBBING CASTING OK. QUICK RELEASE
RISER	NEAR BUOY	3½"	21"	✓✓✓			✓✓✓				ATTACHED TO EACH LUG.
	MIDDLE	3½"	21"	✓✓✓			✓✓✓				
	NEAR GRD RG	3½"	21"	✓✓✓			✓✓✓				
GROUND RING		12" ID.								12'	6" WIRE DIAMETER
BRNG 075° GROUND LEG NO. N-1	UPPER END	2¼"	13½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓				ANODE CONNECTED TO WIRE PENDANT
BRNG 168° GROUND LEG NO. N-2	UPPER END	2¼"	13½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓				ANODE CONNECTED TO LAST VISIBLE CHAIN.
BRNG 242° GROUND LEG NO. N-3	UPPER END	2¼"	13½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓				ANODE CONNECTED TO CHAIN AND ORIG CPS.

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: POL-N CLASS: BUOY DOLPHIN LOCATION: DIEGO GARCIA LAT: — LONG: —

BUOY TYPE: MOD. PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: — VISIBILITY: 3' BOTTOM TYPE: SILT

DATE: 15 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	*										
RISER *	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING *											
BRNG 262° GROUND LEG NO. N-4	UPPER END	2¼"	13½"	√√√			√√√				
	MIDDLE	2¼"	13½"	√√√			√√√				
	ENTERS BOTTOM	2½"	15"	√√√			√√√				ANODE CONNECTED AT SWIVEL
BRNG 306° GROUND LEG NO. N-5	UPPER END	2¼"	13½"	√√√			√√√				
	MIDDLE	2¼"	13½"	√√√			√√√				
	ENTERS BOTTOM	2½"	15"	√√√			√√√				ANODE CONNECTED TO WIRE PENDANT
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS * SEE SHEET 1 OF 2 SHEET 2 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

BUOY POL-S

Buoy

This is a 12-foot by 9 1/2-foot modified peg-top buoy. The freeboard is 45 to 53 inches. The metal retaining band and a fender section are missing from the lower fender and have fallen down the riser. The hawsepipe and rubbing casting are in satisfactory condition, but the buoy is rust covered. An F-shackle in the top jewelry is worn to between 80 and 90 percent of its original wire diameter and two quick releases attached to the shackle's lugs are worn to less than 80 percent of their original wire diameters.

Riser Chain Subassembly

Single- and double-link measurements were all greater than 90 percent of the chain's 3 1/2 inch size. The ground ring was located at a depth of 12 feet.

Anchor Chain Subassembly

These subassemblies consist of 2 1/4- and 2 1/2-inch chain. All measurements taken were greater than 90 percent. However, during the May 1982 inspection, the wear zone section of anchor chain subassembly S-3 was measured to be less than 80 percent of its original wire diameter.

Cathodic Protection System (CPS)

An anode was installed on each of the wire rope anchor pendants. CPS readings were between -.857 and -1.005 volts, and the system appears to be working effectively.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

Conclusions/Recommendations

The buoy should be overhauled and the top jewelry replaced. Even though a less than 80 percent measurement of subassembly S-3 was observed 2 years ago, this leg is not considered essential for the mooring to function, and restrictions on the use of this buoy may be waived by the responsible command. However, it is recommended that the holding capacity be restricted to 75,000 pounds. Also, the retaining band that has fallen down the riser should be removed during the next scheduled maintenance period.

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

MOORING NO.: POL-S CLASS: BUOY DOLPHIN LOCATION: DIEGO GARCIA LAT: — LONG: —

BUOY TYPE: MOD. PEG TOP ANCHOR SIZE/TYPE: 15OK PEA WATER DEPTH: 60' (30'/50') VISIBILITY: 3' BOTTOM TYPE: SILT OVER MUD

DATE: 8 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO / NSF HARBOR OPS

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	BUOY 12'x9'6"										FREEBOARD 53"/45." STEEL BAND
	CHAIN LINK	3½"		✓							AND FENDER SECTION MISSING
	AJL	4"									FROM BOTTOM FENDER. TOP FENDER OK.
	F SHACKLE W/LUGS	4 3/4"			✓						HAWSEPIPE/RUBBING CASTING OK.
	QUICK RELEASE (2)					✓✓					
RISER	NEAR BUOY	3½"	21"	✓✓✓			✓✓✓				
	MIDDLE	3½"	21"	✓✓✓			✓✓✓				
	NEAR GRD RG	3½"	21"	✓✓✓			✓✓✓				
GROUND RING		18" ID								12'	6" WIRE DIAMETER.
GROUND LEG NO. S-1	UPPER END	2¼"	13½"	✓✓✓			✓✓✓			25'	STEEL BAND FROM LOWER FENDER
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				WRAPPED AROUND ALL LEGS.
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓			55'	ANODE CONNECTED TO WIRE PENDANT.
GROUND LEG NO. S-2	UPPER END	2¼"	13½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓				ANODE CONNECTED TO WIRE PENDANT.
GROUND LEG NO. S-3	UPPER END	2¼"	13½"	✓✓✓			✓✓✓				
	MIDDLE	2¼"	13½"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2½"	15"	✓✓✓			✓✓✓				ANODE CONNECTED TO WIRE PENDANT

FOR ADDITIONAL LEGS USE OTHER SHEETS

SHEET 1 OF 2

MOORING NO.: POL-S CLASS: BUOY DOLPHIN LOCATION: DIEGO GARCIA LAT: — LONG: —

BUOY TYPE: MOD. PEG TOP ANCHOR SIZE/TYPE: 100K PEA WATER DEPTH: 55' VISIBILITY: 3' BOTTOM TYPE: SILT OVER MUD

DATE: 8 MAY 84 ENGINEER-IN-CHARGE: J. MCLAUGHLIN DIVERS: UCT TWO

COMPONENTS		GAUGE SIZE	CONDITION								COMMENTS
			LINK LENGTH	SINGLE LINK %			DOUBLE LINK %			DEPTH	
				90+	80+	80–	90+	80+	80–		
BUOY HARDWARE	*										
RISER *	NEAR BUOY										
	MIDDLE										
	NEAR GRD RG										
GROUND RING *											
GROUND LEG NO. S-4	UPPER END	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	MIDDLE	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2 1/2"	15"	✓✓✓			✓✓✓			54'	ANODE CONNECTED TO SWIVEL
GROUND LEG NO. S-5	UPPER END	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	MIDDLE	2 1/4"	13 1/2"	✓✓✓			✓✓✓				
	ENTERS BOTTOM	2 1/2"	15"	✓✓✓			✓✓✓			55'	ANODE CONNECTED TO WIRE PENDANT
GROUND LEG NO.	UPPER END										
	MIDDLE										
	ENTERS BOTTOM										

FOR ADDITIONAL LEGS USE OTHER SHEETS

* SEE SHEET 1 OF 2

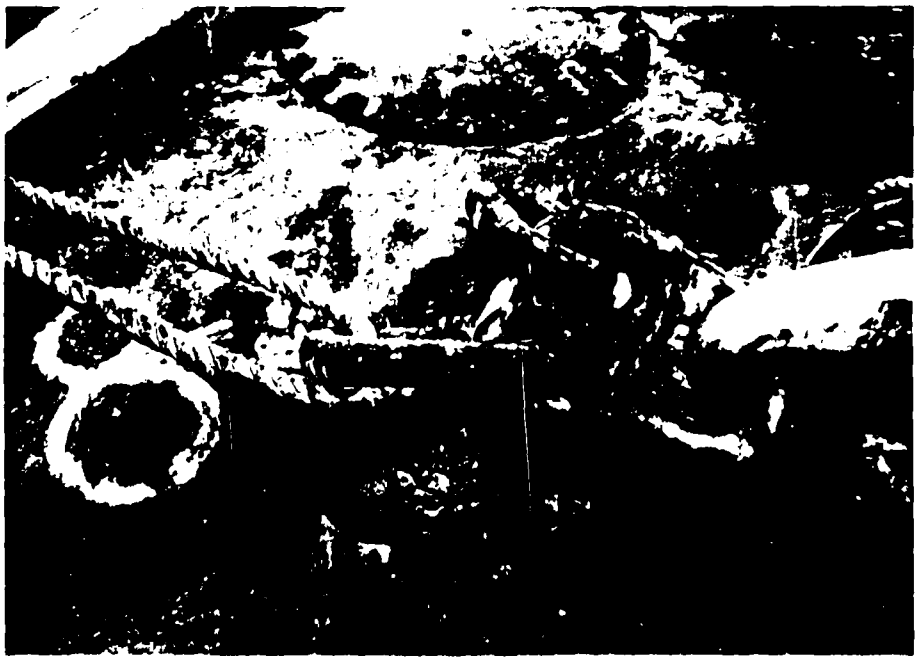
SHEET 2 OF 2

CHESNAVFACENGCOM REPORT FPO-1-84(17), "DIEGO GARCIA FLEET MOORING UNDERWATER INSPECTION REPORT."

ANNEX B

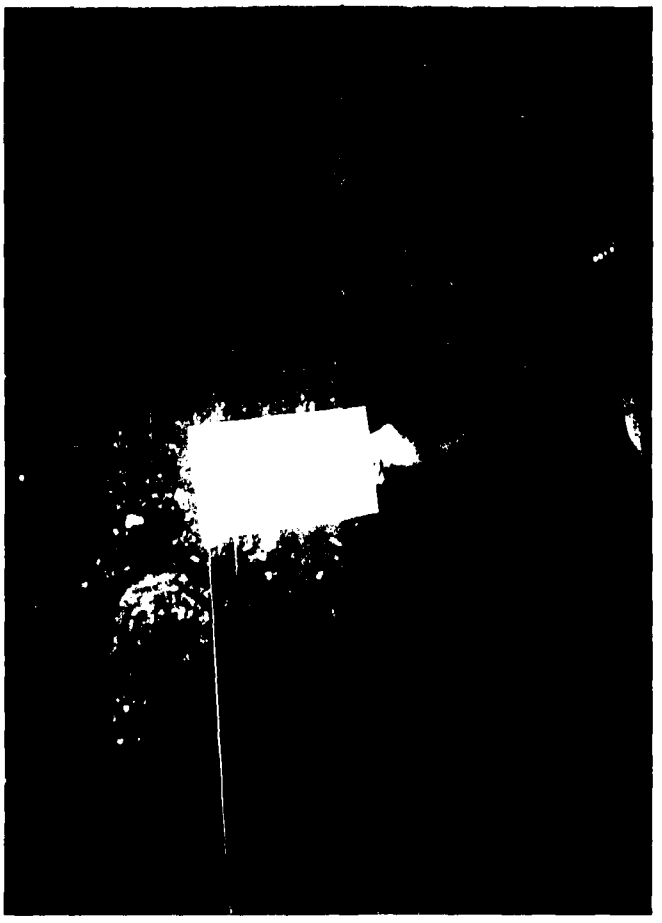
PHOTOGRAPHS

Buoy No. 5 Has Water in its Compartments



Buoy No. 8-S Showing Heavy Corrosion and Wear

An Example of the Deterioration of the Wood Chafing Strips



A Spider Plate on POL N-5

ANNEX C

PRELIMINARY INSPECTION REPORT

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U   U N C L A S S I F I E D   U
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ROUTINE

R 051415Z JUL 84

FM CHESNAVFACENGCOM WASHINGTON DC

TO NAVSUPPFAC DIEGO GARCIA

INFO CINCPACFLT PEARL HARBOR HI
COMCBPAC PEARL HARBOR HI
PWC SUBIC BAY RP
COMNAVFACENGCOM ALEXANDRIA VA
PACNAVFACENGCOM PEARL HARBOR HI
UCT TWO

BT
UNCLAS //N11000//

SUBJ: DIEGO GARCIA FLEET MOORING INSPECTION; PRELIMINARY RESULTS

1. A CHESNAVFACENGCOM/UCT TWO UNDERWATER INSPECTION OF THE 13 FLEET MOORINGS LOCATED AT DIEGO GARCIA WAS CONDUCTED DURING THE PERIOD OF 3-31 MAY 84. THE FOLLOWING IS A PRELIMINARY REPORT OF THE INSPECTION RESULTS.

A. ALL 13 BUOYS ARE RECOMMENDED FOR REFURBISHMENT AT THE EARLIST POSSIBLE TIME. HOWEVER, ALL FLEET MOORINGS ARE SATISFACTORY FOR CONTINUED FLEET USE.

B. POL MOORINGS: THESE MOORINGS SHOULD BE OVERHAULED DURING THE NEXT SCHEDULED MAINTENANCE PERIOD.

2. CHESNAVFACENGCOM POINT OF CONTACT IS MR. C' PENNINGTON AT A/V 288-6608 OR 202-433-6608.
BT

DLVR:CHESNAVFACENGCOM WASHINGTON DC(9)...ORIG

RTD:000-000/COPIES:0009

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CSN:RXOY0117   CHESNAVFACENGCOM WASHINGTON DC

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END

DTIC

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